

The Australian **COMMODORE** **& AMIGA** *Review*

Aladdin 4D

Animation without the wait.

**PageStream 3.0 - What's New? • Animworks
Solving Those Disk Swapping Blues • Games**

AMIGA 1200

THE BEST OF ALL WORLDS



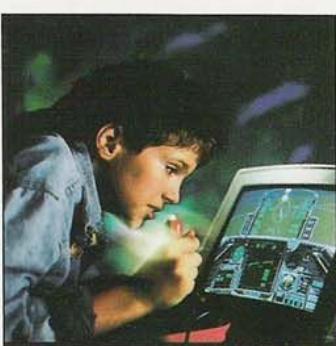
USING AMIGAS

Amigas let you decide how you use them. You can use the point and click system, which we call Workbench, or you can type commands on the keyboard as on MS-DOS computers. Most people prefer Workbench, it is easy to learn and great fun to customise. With Workbench you move the pointer around the screen with the mouse and click on little pictures called icons, these represent functions you want your Amiga to do.

All Amigas can run several programs at once: so you can print a letter, sort names and address lists, listen to some music and play with a paint program all at the same time.

You can also exchange data with MS-DOS machines simply by putting the disk in the drive. Workbench will even give you an icon to make things easier.

Most Amiga programs use a universal file format called IFF. This allows one program to use another's data, for example, a Word Processor can use a picture created in a drawing program.



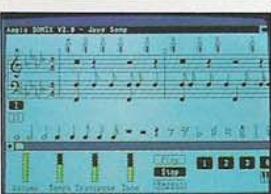
Even the software you buy for your Amiga will be easy to use and great value for money, just like the computer itself.



AMIGA SPECIALITIES

The Amiga is a great tool for work and pleasure but it excels at:

- Anything to do with graphics or video. Being video compatible means that the picture can be displayed on a T.V. or recorded on video. Having a graphics co-processor makes the action fast, whether you are reading through a large report or playing a super-action game.
- Built in digital stereo sound on the Amiga gives you concert quality reproduction. With an inexpensive add-on you can even digitise your own audio and then experiment with it on the screen.
- With the addition of optional emulators, the Amiga can also run MS-DOS * or Macintosh * software - giving you the best of all worlds.



Commodore

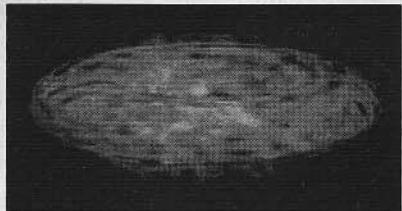
For a supplier near you call (008) 805 067
(outside Sydney metro area) or (02) 428 7666.

Contents

Vol 10 No 6 - June 1993

3D Animation with Aladdin

18



Easy for beginners, Aladdin gives good end results without the long waiting usual with this type of program

14 New Releases for World of Commodore

E
N
T
E
R
T
A
I
N
M
E
N
T

65 That's Entertainment

- News, hints & tips, letters, Hall of Fame

68 Game Reviews

- KGB, Fate - Gates of Dawn, Darkseed, Civilisation



21 Darley Road, Randwick NSW 2031

Ph: (02) 398 5111 Fax: (02) 398 5322

Published by: Saturday Magazine PTY. LTD.

Distributed by: NETWORK Distribution

Printed by: Ian Liddell Pty. Ltd.

Editor: Andrew Farrell (02) 879 7455

Fax: (02) 816 4714

Production: Brenda Powell

Layout: Tina Goins

Subscriptions / Back Issues:

Darren Perry (02) 398 5111

Entertainment Editor: Phil Campbell

Advertising: Ken Longshaw
(02) 817 2509 Mobile 018 230 912

The Animation Workshop

26

The answer to every Amiga animator's dream - Cut, Splice, Scale, Delay in a mouse click

AMIGA MORPHING



22 How to Beat those Disk Swapping Blues



74 King's Quest

- Full solution - Part 1

76 Adventurers' Realm

- Hints & Tips, Trading Post, Problems, Clever Contacts, The Dungeon

Regulars

- 4 Ram Rumbles
- 6 Notepad
- 31 Deluxe Paint Tutorial
 - Animating in (apparent) 3D
- 36 Amos Column
 - Interview with Francois Lionet
- 42 Andy's Attic - Exploring WB2
- 45 You Can CanDo
 - Your own Directory Utilities Part 2
- 48 Education Column
 - World Construction Set
- 52 Down the Opal Mine -
 - Using the Alpha channel
- 54 C64 Column
 - Which 128 WP, For Sale
- 56 Hot PD - Latest Public Domain

Advertiser's Index

Allens	33	Commodore	G-Soft	8	Power Peripherals
Amadeus Computer	29	IFC, IBC, 70, 71	HC Software	64	3, 5, 7, 9, 51, 63
Amitech	40, 41	Computer Man	Hargware	58	Prime Artifax
AmigaP/D Ctr	57	Computa Magic	Logico	13	Quadrant
Amiganuts	64	Computer Outpost	Megadisc	53	Rod Irving
BitMaster	57	Gary Dellar	MVB	10, 11	Scarlet
Brunswick	57	Desktop Utilities	OpalVision	17	Sigmacom
CPA	25	Don Quixote	Pactronics	4	Solutions Rendered
Clip Art Collection	57	Egghead	Parcom	64	TupSoft
Code One	55	Electronic Design	OBC	57	Unitech Electronics
Colour Comp Sys	50	Fonhof	Pelham	47	Wall Street Video
			Phoenix		

Amiga Peripherals at Perfect Prices

SPECIAL Diskettes

3.5" DSDD cheap \$6.99

Amiga 2000 2.05	\$799
Amiga A600 New	\$595
Amiga A600-HD-40Meg	\$799
Amiga 4000/30	No one
Amiga 4000/40	beats us
Amiga 1200/HD/40/84	CALL
Optical mouse	\$69.95
Amiga Mouse	\$29.95
Trackball	\$49.95
Stereo sound sampler	\$69
Gigamem Virtual Memory	\$99

Memory Expansion

A500 512K w/switch & batt.	\$55
2Meg A500/0 plus clock/0	\$125
4Meg A500/0 and clock/0	\$139
A600 1Meg with clock	\$115
8Meg A2000/2Meg pop.	\$379
Blizzard Turbo Memory Board	\$379
Microbotics MBX 1200/0	\$329

New this month - CALL

Hand scanner with OCR	
DKB A1200 Co-Processor + Sim slots	
The Clock	
1.44 Drive	
ICD Viper 1230/40 or 50MHz	
Accelerator/DMA/High speed memory	

GVP Products

Video Director	\$249
GLock with Scala	\$899
GVP A500/52 80 Meg	\$799
GVP A500/120/0	\$1099
GVP A2000/HC8 120Meg	\$999
GVP 2000 HC8/ 80 Meg	\$649

Hard Drives - Specials

A600/A1200 - 80 Mb	\$549
A600/A1200 - 127 Mb	\$799
SCSI 52 Mb	\$385
84 Mb	\$449
127 Mb	\$499
170 Mb	\$599
240 Mb	\$699
G-Force 25MHz/68882/1Mb	\$979
G-Force 40MHz/68882/4Mb	\$1599
CD Rom System A2000	\$749

You never know how low I will go

Computer Man

P.O. Box E265, Perth 6001
611 Beaufort Street, Mt Lawley, Perth, 6050 WA
09 328 9062 or 018 911 011

Editorial

Another financial year comes to a grinding halt - and *Professional Calc 2.0* has arrived just in time to calculate my tax return. But there's no time! There is too much news in Amiga land to sift through. But is it truthful? Can the rumours be trusted?

What of the Amiga 5000 with its dual '040 coprocessor and 68060 CPU? If you have not heard this rumour by now, relax. We've checked out the original document on which the information is based. There can be no doubt it is a fantasy of unlikely and fictitious information compiled to entertain on April Fool's day. The aforementioned document has been doing the rounds ever since. There is no such beast as the Amiga 5000.

Commodore have ceased manufacturing all of the old Amigas. The Amiga 500, 2000 and 3000 have now been completely replaced by the 600, 1200 and 4000. This is a good thing. Progress is the life blood of any good company. No one will argue that the Commodore mothership was starting to fall from orbit. The arrival of the new Amigas was not a moment too soon and early sales indications are that the A1200 is a big winner.

And the best is yet to come. There are strong rumours Commodore are preparing to expand their range of products in two directions. New high end Amigas are in development now. The AAA chip-set as it is currently known boasts more astounding improvements. Expect to see announcements in mid '94 regarding the next generation of power machines.

At the bottom end, Commodore must be feeling the pinch from Sega and Nintendo. But not for much longer. There is increasing reason to believe an Amiga based games console will arrive very soon. When that happens, Commodore should be able to deliver a firm punch to the game market. The sooner the better, I say.

Looking to the future, there are some exciting products surfacing. *Real3D 2.0* has arrived and is set to turn the 3D animation world on end. The power this program offers approaches that available on software costing tens of thousands of dollars on other platforms.

Pagestream 3.0 sounds absolutely amazing - everything *Quark Express* is and then some. Version 3.0 is a brand new program, not an upgrade. Release is slated for the last half of this year. Other developers have improvements and upgrades planned for existing major products - including top line wordprocessors and paint programs.

With *World of Commodore* just around the corner, there's going to be lots of new goodies to look at over coming months. So, be sure not to miss an issue - there's bound to be plenty of new gear reviewed every month. We've also tapped into an excellent number of new sources of news for the Amiga - so check out *Notepad* for all the latest information.

See you at *World of Commodore* next month!



Andrew Farrell

A. AMIGA® — THE VIDEOGRAPHER'S VIDEO-MAKING COMPUTER, FOR ANIMATION, GRAPHICS, CHARACTER GENERATION, AUDIO, ETC.



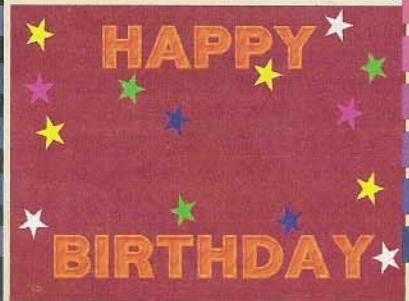
B. BIRTHDAY — OR ANY BIG EVENT IN YOUR LIFE

C. CAMCORDER — ANY FORMAT, FOR LIVE VIDEO

D. DECK — VCR, ANY FORMAT, WITH PRE-RECORDED VIDEO

S. SOUND — ANY SOURCE, SEPERATE PRE-RECORDED, OFF VIDEOTAPE OR LIVE LINE INPUT

G. G-LOCK™ BY GVP — FOR SIMPLE TITLING OR MIXING IT ALL TOGETHER



A 500
A 600
A 1200
A 2000
A 3000
A 4000



THE BUILDING BLOCKS OF BETTER VIDEO

G-Lock™ Makes Your Video Connections With:

- Genlock features for crisp overlays of scrolling, or static titles, graphics over live video and recording to videotape with high quality results.
- Simple, intuitive mouse-driven software control panels. Full ARexx, CLI interfaces and Workbench interfaces.
- Software selection of 2 composite video inputs or 1 Y/C (S-Video) input.
- Software selection or mixing of 2 audio inputs with bass and treble control.
- Software-driven video processing amplifier, (proc amp) offering complete real-time signal processing control, including hue, brightness, saturation and more.
- Software-controlled RGB color splitter compatible with video digitizers like Newtek's Digi-View™.
- Built-in transcoder converts input video to composite, Y/C, RGB or YUV outputs.
- Full ECS/AGA support for full compatibility with new A1200 and A4000 systems!
- Compatible with popular titling software like AmigaVision™, Scala-Multimedia 200™ and Gold Disk's Video Director™.
- Separate versions available for standards around the world. Compatible with NTSC, PAL and SECAM.

Video: A Cut Above

G-Lock's six video control panels enable you to perform a wide array of special effects on still or motion video including ...

- ▶ Colorizing for unique visual effects.
- ▶ Creating your own "classic" black and white videos using the Colorkill feature.
- ▶ Color filter effects.
- ▶ High-quality keying effects with bitplane or chroma keying.
- ▶ Manual or automatic (ARexx triggered) fades and cuts.



GLOCK

Audio: Sound Designs

G-Lock's dual-input audio panel switches, mixes and shapes sound for effects such as ...

- ▶ Combining stereo channels or separate inputs without a "Y" adaptor.
- ▶ Treble and bass equalization.
- ▶ Plus, add DSS8 or any Amiga created/modified digital audio samples to your final mix!

Professional video processing + audio processing + a powerful but simple interface + creative special effects, make G-Lock the cornerstone of your multimedia productions!

Distributed In Australia By



P O W E R
PERIPHERALS PTY LTD

1st Floor, 257 Hawthorn Road
Caulfield North, 3161
Telephone: (03) 532 8553
Facsimile: (03) 532 8556

UPDATE COLUMN

Great news for parents with young children! We now have a range of educational products for the Amiga called ADI JNR. At the moment there are two programs, Counting and Reading. In both cases they are for age groups 5-6 or 6-7 and they are an ideal way to get your child happily playing on the Amiga whilst learning at the same time. The Reading package teaches the child to associate sounds with letters and to recognise harder sounds; reading and spelling of harder words; listening skills; memory and observation skills. The Counting package teaches reading and recognising numbers of things; sorting numbers into right order; painting by numbers; adding and subtracting; pattern matching; observation and memory skills. Children can also use ADI JNR as their guide learning to draw, paint, tell the time, etc. These products have been prepared following extensive research by educationalists and psychologists.

For the AMOS user. Amos Pro Updater V1.2 and the Amos Pro Compiler should be released 24th June. Amos the Creator V1.36 and the Compiler 1.36 are now available as is the Object Modeller which will run under Workbench 2 or Workbench 3. These are available as upgrades. You need to send in \$5 with your name and address asking for the particular package you would like.

THIS MONTH'S "SPECIALS"

FUN SCHOOL 2 ages 2-6; 6-8; 8+	\$20.00
normally \$29.95	
FUN SCHOOL 3 ages 5-7; 7+	\$35.00
normally \$59.95	
1Mb RAM EXPANSION FOR A600	\$110.00
normally \$159.00	
RODY & MASTICO	\$25.00
normally \$39.95	
MUSICIAN	\$40.00
normally \$59.95	

Finally, let me remind you of our great range of Amiga books ranging from "Amiga for Beginners" up to "Advanced System Programming" and just about everything for your computer and software in between. Please ring for list and special book prices on (02) 748 4700.

Pactronics Pty Ltd, 98 Camarvon St, Silverwater, NSW (02) 748 4700



Ram Rumbles

Amazing Stories: A600 Survives Plane Crash!

Yes folks, read it and be amazed. The following letter was too good to hold over for one more month. Here follows an amazing story of the fate of an Amiga 600.

"I am writing to inform you of an incident that involved my Amiga 600HD recently. The incident of which I speak, I'm sure you'll agree, will amuse you and is a credit to Commodore.

"While travelling to Perth, from Brisbane, my plane was scheduled to stop over in Melbourne. I was planning to spend three weeks holiday over the Christmas period in sunny Perth, occasionally doing some programming on my Amiga. However it seemed a higher power had other plans. Shortly after landing in Melbourne airport I was paged to the baggage claims office, where I was greeted by a worried looking woman.

"I'm afraid I have some disturbing news," she announced. Before me on a counter lay shreds of luggage, plastic keys and assorted mutilated Christmas presents. Still in confusion and possibly shock-induced denial, I asked the woman what was it that she wanted.

"I am not sure to this day as to the events that led to my computer's destruction but they appear irrelevant when compared with the actual act. The only witness, a baggage handler of impeccable rectitude, explained that although my bag was placed on the luggage trolley it must have dislodged itself along the journey to the terminal. The bag in question was dragged some hundred metres along the ground where it was left defenceless on the perilous tarmac.

"My computer and the contents of the bag, was somehow in direct line with the flight path of an incoming 727. I am unaware as to whether the pilot deliberately

swerved to hit my bag or if it was just a good shot but my leather diary now boasts tyre marks on its cover.

"The airline in question was more than apologetic, swearing that they would compensate me for any loss incurred. I looked at the several parts of my computer that littered the length of the counter and nodded in the affirmative. A small plastic bag contained several keys, the hard drive sat in another with the keyboard and the disk drive looked as though it could fit 5 1/4 inch disks.

"I returned to Perth amused at my fate, it is not everyone who can claim my circumstances. However it was not until several days later did I try to resolve it. The motherboard was cracked where the disk drive had attempted to pass through it and the plastic casing had assumed some form of complex three dimensional abstract form. The hard drive attached rather well but I was unaware as to the effect a large object like a 727 would have on its data, I hazardously guessed it would be somewhat detrimental.

"I bridged over the cracked tracks with wire, replaced the old disk drive, which now would probably read CD ROMs, with an old external drive, encased the pieces in a perspex case and connected the rubble to the power. The finished product looked like something from *The Time Tunnel* only with less flashing lights.

"When I first saw the Amiga 600HD I was amazed at what this 'keyboard with a CPU' could do. It was perfect for my study, small and compact yet powerful enough to be used to develop serious software on. I am studying computer engineering and this machine is ideal for me.

"I did not in my wildest dreams think that an instrument of this nature could survive such an attempted annihilation. Not only did the hard drive work and recall all my data, but the rest of the machine worked perfectly. I have to buy another internal disk drive, and mount the electronics in a new case but apart from that I still have a working machine.

"I feel this is a credit to Commodore's engineers in designing such a sturdy piece of equipment. Although an extreme example, I am sure this factor is appreciated by anyone who has ever dropped, bumped or fallen asleep on the keyboard. I am saving to buy the A1200 now when it is released."

Paul Nevin, Esperance WA

SCALA

**Everybody's talking multimedia revolution.
Allow us to light the fuse.**

A lot of apples were bruised when we first introduced Scala, the professional presentation package. With the new Scala MultiMedia MM200, they will be blown into oblivion!

Let us introduce a few of the features that make Scala MM200 combined with the Amiga the world's most powerful multimedia environment:

Scala EX

A revolutionary new plug & play system, for the integration of laserdisk, still video, MIDI, or CDTV sound in your Scala presentation. Extra EX'es, such as 24 bit graphic support and VCR control are also available.

Scala Wipes

More than 80 amazing, smooth and professional transitions provide possibilities previously unseen on the Amiga.

Scala Sound

Enhance your presentations with voice-over, music and special sound effects! Scala offers total control of recording and play-back.



The Scala main menu.



Scroll text by Scala.



The Scala edit menu.



It's a Scala world!



The Scala Shuffler.



POWER
PERIPHERALS PTY LTD

 **The SCALA group:**
Oslo, Copenhagen, London,
Amsterdam, Stockholm,
Washington DC.



1st Floor, 257 Hawthorn Road, Caulfield North, 3161
Phone: (03) 532 8553 Fax: (03) 532 8556
Amiga is a registered trademark of Commodore-Amiga, Inc.



AnimLab

With this bonus program you can make your animations play up to four times faster!

The press writes:

"The word multimedia has been battered and misused... Scala on the other hand, know exactly what multimedia is and what to do with it!" *Amiga User International (UK)*

"...the best program in show business." *Amiga Format (UK)*

"Scala MM200 is the kind of software that many serious users simply can't afford to be without." *Amiga Computing (UK)*

Scala MM200

— for video titling, training, business presentations, interactive use — or any multimedia combination.



For a close look at the market leader in multimedia software, contact your dealer today!

SCALA
Why make it harder?

NOTE PAD

New Super Power Processor

Motorola has been quietly working on a powerful successor to the 68040, the 68060, that will perform in the range of 100 million instructions per second (MIPS), compared with the 29 MIPS of a 68040 with a 33MHz clock rate.

The 68060 employs super-scalar execution, that is, the ability to perform two instructions per clock cycle. Motorola plans volume shipments of a 50MHz 68060 in early 1994, with a 66MHz chip to follow. Motorola skipped development of a 68050 in favour of the more radical 68060 design.

Imagemaster 9.5 Upgrade!

Black Belt Systems is in the process of releasing a major new upgrade to *Imagemaster*, designated version 9.50.

New features include support for selected Epson flatbed scanner models, standard with the upgrade or release. Includes ES300, ES600 and ES800. (They can provide prewired cables, also). This scanner support is based on the Metadigm "Metascan" product, an integrated version of which is now supplied with *Imagemaster*. (If you own the ASDG scanner driver, you can use that cable with the new driver - or, they have optional cables available for purchase).

Aspect sense; determines the exact aspect of the monitor/mode combo simply, easily and in a foolproof manner. Even takes into account any distortions introduced by monitor width/height settings.

Exact Aspect display mode; aspect ratio correct display capability. This, in combination with Aspect Sense, allows you to see and work on images exactly as they are intended to appear.

Supports AGA 800x600 for work and render output.

New image and ANIM file format support:

- Reads IFF images from the Amiga ClipBoard device, Writes IFF images to the Amiga ClipBoard device,

- Reads ALL kinds of TIFF image files (in both IBM and Mac formats),

- Writes 24-bit TIFF files,
- Reads Windows BMP image files
- Writes Windows BMP image files,
- Reads AGA mode ANIM frames
- Generates AGA mode ANIMS,
- Reads frames from Autodesk FLI/FLC Animation files (IBM PC format),
- Writes AutoDesk FLI/FLC animation files

- Reads MacPaint files,
- Reads NoteBook files,
- Reads Amiga .info files,
- Reads 12-bit General Electric MRI (Magnetic Resonance Imaging) files,
- Reads PCX files,
- Reads WinImages:morph 24-bit filmstrip files.

Comic Relief

NEW VIRUS STRAINS DETECTED

compiled by Lloyd E. Pulley, Sr.

Politically Correct Virus:

Never calls itself a "virus," but instead refers to itself as an "electronic microorganism." Infected computers immediately stop processing and display "computationally challenged" as an error message.

dreds of little units, each of which does practically nothing but all of which claim to be the most important part of the computer and therefore requires additional resources. When detected, attempts to invoke Version 2 of the Congressional virus.

Government Economist Virus:

Nothing works, but all your diagnostic software says everything is fine.

Federal Budget Virus:

Attempts to allocate non-existent resources to hard drive partitions created by the Bureaucrat virus. Upon failing, passes control to the IRS virus which locks up the entire computer and seizes its assets.

Congressional Virus:

Especially insidious, this virus comes in two versions, each version replacing the other at random intervals.

Under Version 1, the computer locks up, screen splits erratically with a message appearing in each half blaming the other side for the problem. Version 2 runs every program on the hard drive simultaneously, but doesn't allow the user to accomplish anything.

Airline Virus:

You're in Sydney, but your data is in Melbourne.

Kervorkian Virus:

Helps your computer shut down whenever it wants to.

Paul Revere Virus:

This revolutionary virus warns you of impending attack — once if by LAN, twice if by C.

Federal Bureaucrat Virus:

Divides your hard drive into hun-

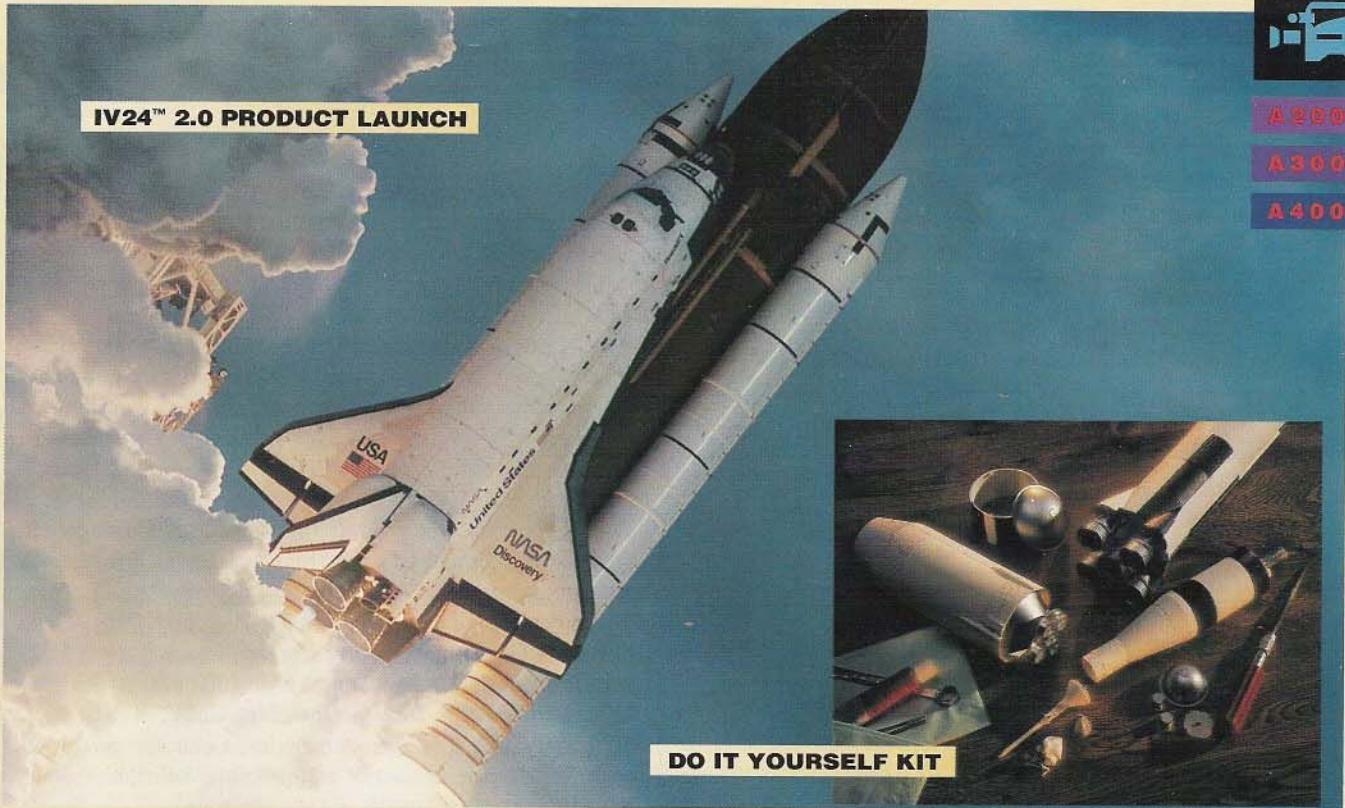
**IV24™ 2.0 PRODUCT LAUNCH**

A2000

A3000

A4000

PHOTO COURTESY OF NASA

**DO IT YOURSELF KIT**

ROCKET SCIENCE MADE SIMPLE

...HIGH Flier VERSUS "SOME ASSEMBLY REQUIRED"

Some 24 bit video boards make you pay your money and take your chances. You take a chance that they'll be up and flying in the future. You take another chance that all the "enhancements" they promised will be around tomorrow. Or that they'll be around tomorrow. Why take any chances when GVP has everything on your countdown list *today*?

**IV24™**

- Integrated video genlock**.....
- 1.5MB 24-bit, 16.8 M color frame buffer**.....
- Real-time framegrabber/digitizer**.....
- De-interlaced video flicker eliminator**.....
- VIU-S with RGB, composite, S-VHS input/outputs**.....
- Optional VIU-CT™ pro-grade component transcoder (Betacam, M-II compatible) input/outputs**.....
- 2-way moveable, sizeable PIP (picture inpicture) display, (video over application or application over video)**.....
- Digital and analog key inputs**.....
- Captured image retouching/processing**.....
- Video switcher transitions**.....
- Real-time 24 bit paint**.....
- Animation/3-D rendering**.....

**The VIU Advantage:**

GVP is serious about video! So IV24's Video Interface Unit gives you more choices for inputting and outputting video signals than any other Amiga® peripheral on the market. Nobody else gives you a VIU splitter, let alone one that does so much. IV24's VIU manages video from computer sources, component tape formats, composite video, even broadcast professional formats—in any combination you can imagine.

Software Mission Control

Desktop Darkroom™ • Capture images in Desktop Darkroom or bring stills in from other applications for professional processing and retouching, using filters, special effects and color separation.

MyLAD™ • Hot-switch between two video sources with 50 packaged video transitions for live action production studio effects.

Macropaint-IV24™ 2.0 • (New release—Significantly enhanced!) Paint 24 bit graphics from a stunning palette of 16.8 million colors. Then key video over graphics or graphics over video. Access ARexx scripts directly.

Caligari24™ • IV24's newest software bonus is a complete 3-D modeling/animation/rendering package. Desktop animation's future—on your Amiga today.

IV24 is on the launching pad today, awaiting your order for lift off. The decision—how to spend your video future—airborne at full thrusters...or grounded, waiting for parts?

Distributed In Australia ByP O W E R
PERIPHERALS PTY LTD

1st Floor, 257 Hawthorn Road
Caulfield North, 3161
Telephone: (03) 532 8553
Facsimile: (03) 532 8556

**V2.0 Software with
Caligari Broadcast
Included \$2399**

GVP

GSOFT Pty Ltd
(08) 254 2261

GSOFT
Computer Products

**Good solid advice at reasonable prices
from 9:00am to 12:00 MIDNIGHT
7 DAYS a week.**

We trade at hours that suit YOU

Just a selection of what we can help you with:

AMIBack	\$89	AMIBack Tools	\$79
CanDo V2	\$199	Turboprint Pro	\$119
SuperDJC V2	\$69	ProWrite	\$125
ArtDep Pro	\$310	MorphPlus	\$275
ArtExpression	\$269	PINBALL Dreams	\$79
NEW ➤ IMAGINE OBJECTS DISKS	\$29		
TruePrint 24	\$96	OPAL VISION CALL FLOPTICAL Drives (External SCSI)	\$899

Cost effective durable reliable removable storage
TOUCHWINDOWS - Cost effective Touch

Screens. Great for Education Applications **\$549**

MEMORY for your A1200 (Clock Included!)
Inc 68881, CLOCK, Uses TWO SIMM slots so
you can upgrade in steps. **From \$379**

(Call for other RAM configurations)

We also **SELL the entire AMIGA range**

Call us for a competitive price and reliable advice



Directory OPUS

(All New Version)
On Special this month

\$99

HOT NEW PRODUCTS

- VIDI 12 **Unbelievable** \$280
- 14,000 Baud Modems from \$549
- Multi IO Card - Provides 2 Serial and 2 Parallel Ports (Suits A2000-4000). Works with PARNET
- Deluxe Paint keyboard Overlays! These are great and Australian made only .. **\$19.95**

And don't forget we have the Worlds **BEST** Audio Sampling and Editing system for the Amiga!

AUDIO ENGINEER

**DROP IN AND HAVE A CHAT WITH US AT
THIS YEARS WORLD OF COMMODORE**

Call if we can help you with any product. We offer
prompt friendly service with honest pricing.

GSOFT Pty Ltd
PO Box 59
Elizabeth SA 5114
Phone (08) 254 2261
Fax (08) 254 2261

Supporting AUSTRALIAN products
Call us if you have a product to sell!



Many file formats that were previously only available via the F1 key route are now able to be automatically loaded through the simple File I/O method.

Completely revamped CMY+(K) colour separation capabilities for more accurate colour prepress operations. New, faster 256 preset colour AGA display method for good looking preview mode that does not require new palette computation when changes are made to an image.

Completely new palette control area for AGA machines: Attractive new look display; 256 visible, modifiable colours, with individual render tags; Full 18-bit colourspace colour cube onscreen at all times; Colour Cube preset, prescan, FG set and BG set; "Painter's Palette" feathering and mixing area; 24-bit accurate colour palette displays; On-screen range manipulation tools; Copy, Exg, Hue-Spread, RGB-Spread, Mirror-Spread, Insert Range; Hue-Sort, Value Sort, Undo changes; 640x400 or 800x600 resolutions for palette, fully promotable; CMY, RGB, HSV, HSL and CMYK adjustment modes; Load and Save palettes WITH palette control information; Selected colours have live marques - quick and easy to spot.

Ability to absolutely control palette for rendering images; Any colour or combination of colours: "NOT TO BE USED AT ALL"; Any colour or combination of colours: "USE AS IS"; Any colour or combination of colours: "AUTOPICK BEST COLOR"; Single key "insta-swap" of primary and secondary images. Complete reworked buffer-generating Perspective operation. Brand new compose-level Perspective option. Support for Centaur's Opalvision display board.

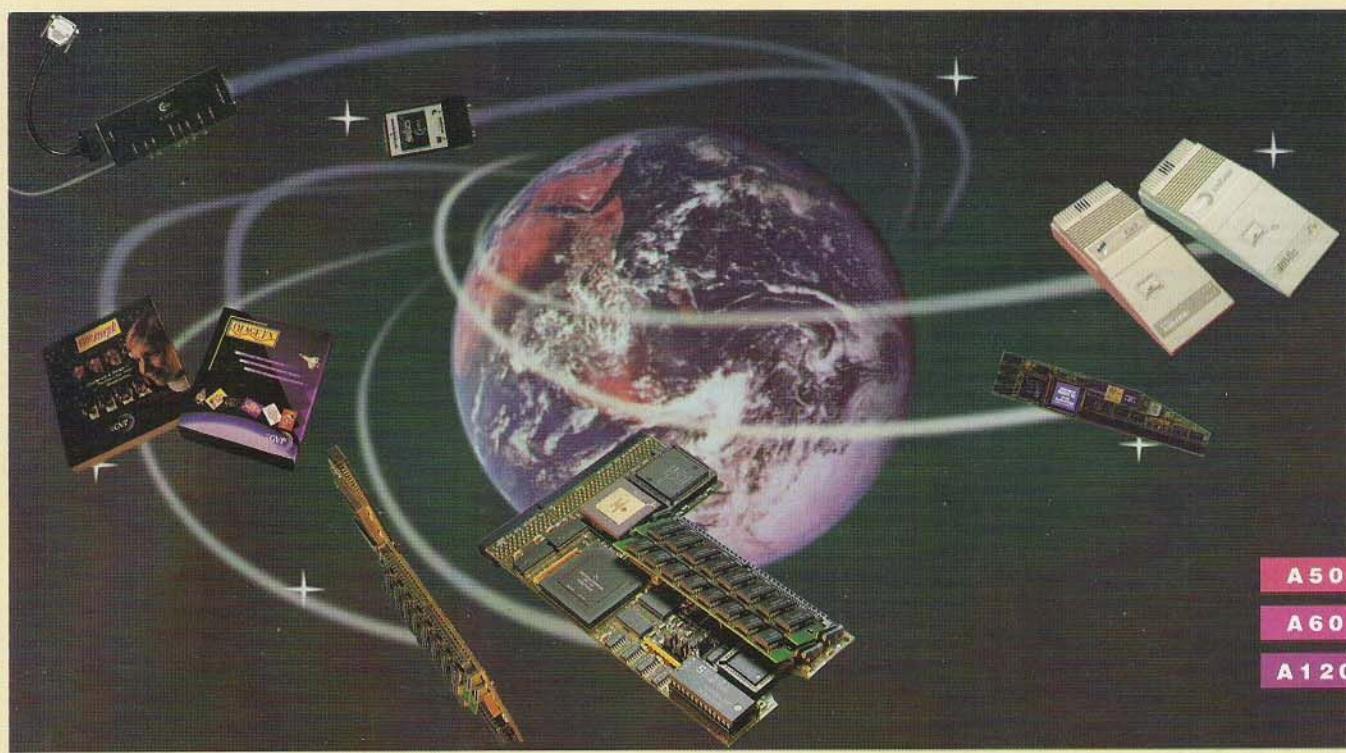
New scientific functions: Add a constant, Sub a constant, Div by constant, Mult by constant, Mult by secondary, Div by secondary, Logarithm base N of X, For the scientific users! N raised to X, Raise to power, Root, Arbitrary Profiles, Arbitrary Spectrums (1-D Fast Fourier Transforms), Variance Conversions.

New higher power "Sharpening" function. Sends images directly to GVP's *ImageFX* software. Includes high quality "Poster Printer" capability.

New ARexx commands: userload - loads new images via the familiar user interface, simload - loads new images to a non-specific buffer, forcewbfront - Brings WB to front no matter the autoactivate state, forcefront - Brings IM to front no matter the autoactivate state, ehlp - Takes IM error numbers and reports error in english, perspect - generates perspective operations.

Small panel re-organizations in many locations for ease of use. Control panels smooth scroll and autorepair AmigaOS screen positioning bugs. Radial wave now utilizes image's aspect ratio. All I/O requesters now open on *Imagemaster* screens; this reduces screen flipping and prevents monitor re-syncing stress when running 800x600 in either *Imagemaster* or another application (including the WorkBench).

Syndesis introduces Mac PICT-format reader and writer (third party).



A 500
A 600
A 1200

EXPAND YOUR HORIZONS

With the world's largest family of GVP productivity-enhancing peripherals for Amiga® 500, 600 and 1200 computers

INTRODUCING The A1200 SCSI/RAM+™ and A1230 TURBO+™

Take full advantage of the Amiga 1200 with these powerful new additions to the GVP line.

A1230 TURBO+

- Stepped-up payload—down-to-earth price
- 40MHz 68EC030 processor.
- 1MB 32-bit 60ns RAM, incrementally expandable to 32MB.
- FPU socket for optional 40 MHz math coprocessor [for intensive floating-point operations like animation].
- GVP's exclusive Kickstart Remapping Technology copies Kickstart ROM into Fast RAM for accelerated performance.
- Fits in "trap-door" slot for easy installation. Maintains A1200 warranty.

A1200 SCSI/RAM+

- Economical SCSI workstation versatility
- Includes high-speed DMA SCSI Hard Disk Controller. Attach up to 7 other external SCSI peripherals.
- 1MB standard with onboard 32-bit, 60ns, 0 wait-state RAM expansion, (expandable to 8MB).
- FPU socket for optional math coprocessor.

A530 Turbo™

Turbo-charged A500 Enhancer

- Amiga World called it "the best A500 Expansion Box ever." Turbo's 68EC030 40MHz CPU powers your most intensive applications more than 10 times faster, for A3000-surpassing performance.
- High-speed DMA SCSI hard disk controller with internal hard disk.
- Access up to 8MB of 32-bit RAM.
- Unique mini-slot for further expandability.
- Instant expandability for up to 7 SCSI devices
- 68882 FPU socket.

A500-HD8+™

Classic A500 Enhancer

- Value-packed with many A530-Turbo features.
- Up to 8MB fast RAM expansion.
- High-speed DMA SCSI hard disk controller with internal hard disk.
- Instant expandability for up to 7 SCSI devices.
- Unique mini-slot for further expandability.

GVP/PC286™

A500 PC/286 Emulator

- Fits in the mini-slot of the A530 Turbo or A500HD8+ to emulate a "286-16" PC. MS-DOS/Windows compatible.

- 512K dedicated PC memory + Amiga memory sharing, CGA-VGA mono display emulation, 80C287 FPU socket.

Great values for the entire Amiga line

G-Lock™

- The industry's most versatile and well-engineered genlock board for professional titling and graphic applications.
- Powerful, intuitive software interfaces.
- Video and audio special effects.

DSS8™

- Record, edit and compose digital audio samples in real time for multimedia audio mixes.
- MIDI-in capability with direct interface between sequencer and editor.
- Graphic editing and composition of wave forms.
- Dozens of effects and features make this the most comprehensive 8-bit Amiga digital audio device.

CineMorph™

Morphing Special Effects Software

- Powerful enough for professional morph results, but easy enough for novice use.

A1230 TURBO+™

A1200 SCSI/RAM+™

A530 Turbo™

A500-HD8+™

GVP/PC286™

DSS8™

CineMorph™

ImageFX™

- Generate "composites," aging or missing person simulations.
- Integrated, Amiga-style interface compatible with any Amiga, DCTV™ or HAM-E™ system.

ImageFX™

Image Compositing Software

- Digital retouching with the most complete set of filters, color gradients, image distortions, masks, and text handling tools on the market.
- Converts your Amiga into an image prepress/color correction system with CMYK, RGB, HSV, and YUV.
- Scan in or framegrab from virtually any image capturing device.
- Includes CineMorph features, at no extra charge.

- When it comes to a sheer range of innovative products, uncompromising excellence and comprehensive customer support—one company consistently outperforms the rest.
- World-class performance—it's what you expect from the world's #1 Amiga peripherals company.

Distributed In Australia By



1st Floor, 257 Hawthorn Road
Caulfield North, 3161
Telephone: (03) 532 8553
Facsimile: (03) 532 8556

1200 SCSI RAM
4MB, 33MHz 68882 \$999
Cinemorph \$149



AMIGA SOFTWARE (NO MEMBERSHIP REQUIRED!)

AMOS 3D	\$ 88.00	Imagewriter Professional V9.23	\$179.00
AMOS Compiler	\$ 65.00	Imagine 2 PAL	\$279.00
AMOS Professional	\$165.00	Infofile	\$ 79.95
ATalk III	\$ 59.95	KARA Anim Fonts 4	\$ 57.50
Aladdin 4D	\$434.95	KARA Anim Fonts 5	\$ 57.50
Ami-Back 2.0	\$ 67.95	KARA Fonts Headlines 2	\$ 69.95
Ami-Back Tools	\$ 69.95	KARA Head Line Fonts 3	\$ 74.95
Anim Workshop	\$ 74.95	KARA Head Line Fonts 4	\$ 74.95
Art Department Conversion Pack	\$ 84.95	KARA Star Fields	\$ 57.50
Art Department Epson Drivers	\$135.00	Kind Words 3	\$119.95
Art Department Pro (Latest Version)	\$239.00	Mac to DOS	\$122.95
Art Expression	\$249.00	Mapmaster Suit Imagine	\$ 69.95
Bars & Pipes Creativity Kit	\$ 69.95	Maxi Plan 4	\$151.95
Bars & Pipes MultiMedia Kit	\$ 59.95	Mini Office	\$124.95
Bars & Pipes Pro Studio Kit	\$ 69.95	Morph Plus	\$249.00
Bars & Pipes Professional II	\$349.00	Morphus for Imagine	\$102.95
BoardMaster	\$ 97.50	Newtek Media Station	\$259.00
Brilliance	\$ CALL	No Virus	\$ 29.95
Broadcast Fonts 3D	\$155.00	PC-Task	\$ 59.95
Broadcast Fonts 3D Caligari 2	\$155.00	PageStream HotLinks V1.1	\$139.95
Broadcast Fonts 3D Lightwave	\$155.00	PageStream V3	\$ 89.95
Broadcast Titler 2	\$357.00	PageStream Font Classic	\$199.00
Broadcast Titler 2 Hi-Res	\$459.00	PageStream Font Newsletter	\$114.95
Buddy System AmigaDos V2.04	\$ 64.95	PageStream Font Pack 1	\$ 79.95
Buddy System Deluxe Paint IV	\$ 76.95	PageStream V2.2 & Hotlinks V1.1	\$273.95
Buddy System Imagine	\$ 64.95	Pascal High Speed	\$185.00
Buddy System Pagestream	\$ 59.95	PatchMeister (Bars & Pipes)	\$ 94.95
C-Net V2.6	\$119.00	Pelican Press	\$ 92.50
CDTV Case O/T Cautious Condor	\$ 54.95	Pixel 3D	\$199.00
CDTV Classic Cookbook	\$ 29.95	Power Copy V3	\$ 91.95
CDTV Fantastic Voyage	\$ 52.50	Power Packer Professional V4	\$ 37.50
CDTV Fred Fish V1.6	\$ 79.95	Printmaster Plus	\$ 66.95
CDTV NASA the 25th Year	\$ 29.95	Pro Fonts Volume 1	\$ 35.95
CDTV Sherlock Holmes	\$ 74.95	Pro Fonts Volume 2	\$ 35.95
CDTV Snoopy	\$ 29.95	Pro Page V4 & Pro Draw Bundle	\$399.00
CDTV Trivial Pursuit (SPECIAL)	\$ 50.00	ProWrite 3.3	\$ 94.95
CDTV The Connoisseur Art	\$ 52.50	Professional Calc V2 AGA	\$179.00
Calagari 24	\$475.00	Professional Page 3.0	\$139.00
Calculus	\$ 59.95	Professional Page V4	\$219.00
Can Do Pro Pak 1	\$ 52.50	Proper Grammer II	\$ 84.95
Can Do V2.0	\$187.00	Quarterback V5.02	\$ 66.95
Cinemorph	\$189.00	QuickWrite	\$ 49.95
Commodore Release V2.1 Kit	\$ 99.95	Real 3D V2	\$ SOON
Contact V2.0	\$ 74.00	SAS C V6 Dev System	\$419.00
Cross Dos V5.0 / Cross PC	\$ 54.95	Scala 500	\$115.95
Cycleman (Suit Imagine)	\$ 59.95	Scala MM210	\$399.00
Cygnus Ed Professional V2	\$ 91.95	Scapemaker V2.0	\$ 39.95
Deluxe Paint 4.1	\$164.95	Scapemaker V3.0	\$ 74.95
Deluxe Paint 4.5 AGA	\$221.95	Scenery Animator 2	\$ 87.95
Deluxe Paint III	\$ 94.95	SoftClipart Animals	\$ 64.95
Design Works	\$ 75.00	SoftClipart Classic	\$ 79.95
Directory Opus V4	\$104.95	SoftClipart Collectors	\$ 77.50
Disney Animation Studio	\$ 79.95	SoftClipart People	\$ 74.95
Distant Suns V4.1	\$ 89.95	SoftFaces Vol 1	\$ 94.95
Doctor Ami	\$ 57.95	SoftFaces Vol 2	\$ 94.95
Dos to Dos	\$ 54.95	SoftFaces Vol 3	\$ 94.95
Easy AMOS	\$ 84.95	SoftFaces Vol 4	\$ 94.95
Electric Thesaurus	\$ 56.95	Super Desk Jet Drivers V2	\$ 47.50
Essence for Imagine	\$ 74.95	Super Jam V1.1	\$145.00
Excellence V3.0	\$116.95	Superbase Personal II	\$ 89.95
Final Copy II Release 2 (UK Dict)	\$169.00	Superbase Pro 4 V1.2	\$295.00
Flow	\$ 69.95	TV Paint	\$ CALL
Giga Mem V2	\$133.95	True Print 24	\$ 94.95
Heim	\$185.00	TypeSmith	\$199.00
Hisoft Dev Pack 3	\$122.95	Video Director	\$199.00
Home Accounts 2	\$129.00	Visionaire	\$129.95
Home Office Kit Deluxe	\$185.00	Vista Pro 3	\$ 89.95
Hyperbook	\$ 99.95	Wordworth V2	\$289.00
Image FX	\$399.00		

* Please note: Prices with \$CALL where unknown at the time of publication, Please call for current prices!

NEW!



Commodore 1942 TriSync MONITOR (Suit all AGA Amiga's)

\$ CALL



GREAT VALLEY PRODUCTS

A1200 ADD-ON'S

- * A1200 SCSI Controller with 68882-33Mhz Co-Pro & 4Mb RAM \$939-
- * A1200 SCSI Controller with No Co-Pro & 0Mb RAM \$519-
- * A1230/030 40Mhz & 68882 with 4Mb \$1249-
- * A1230/030 40Mhz & No Co-Pro with 0Mb \$875-

NEW!

MODEMS

FULL RANGE AMIGA MODEMS STARTING AT \$299.00

Special

ONLY

PRO-PAGE 3 \$139-

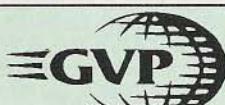


ADD A EXTRA
HARD DRIVE TO
YOUR A1200
(FREE INSTALLATION!)

NEW!

40Mb.....	\$299-
85Mb.....	\$555-
120Mb.....	\$705-

If you have any questions please give us a call!



GREAT VALLEY PRODUCTS
Hard Disk Drives
Suit A500/A2000

FULL 2 YEAR FACTORY WARRANTY

CALL FOR CURRENT PRICING & SIZES!

FULL RANGE OF GVP PRODUCTS AVAILABLE & ON DISPLAY

SYQUEST

88Mb Removable
Drive

Syquest 88Mb removable SCSI external drive complete
with cables & manuals

NORMALLY \$1160- MVB PRICE \$975-



GREAT VALLEY PRODUCTS

Digital Sound Studio

8Bit Sound Sampler \$159-

HARD DRIVE MECHANISMS

Quantum SCSI 40Mb ELS	\$ 399.00
Quantum SCSI 85Mb ELS	\$ 439.00
Quantum SCSI 105Mb LPS	\$ 479.00
Quantum SCSI 127Mb ELS	\$ 529.00
Quantum SCSI 170Mb ELS	\$ 589.00
Quantum SCSI 240Mb LPS	\$ 769.00
Quantum SCSI 525Mb LPS	\$1899.00
A1200/A600 80 Mb HD.....	\$ 515.00
A1200/A600 120Mb HD.....	\$ 665.00

How To Order ??

Mail Order/ Phone Order
Visit our Showroom!

We Accept:
Visa, MC/CD, NM/CD, Bank Cheque,
Personal Cheque (Allow 1 Week Clearance),
Money Orders,
Phone For Prices, Availability & Postage!

ICD

A500 40Mb Internal
Hard Disk \$399-

RETINA

24Bit GRAPHICS BOARD

Suit: A2000, A3000, A4000

From \$799.00

VLAB

24Bit VIDEO DIGITIZER CARD

Suit: A2000, A3000, A4000

From \$699.00

CD-ROM DRIVES

Suit A2000/A3000/A4000

External: \$ CALL

Internal: \$ CALL

* Complete with CDTV
Emulation software &
2Fish CD's



Australian Owned,
Australian Design, Australian Support!

"Awesome, Spectacular, Amazing, Brilliant, Wonderful!"

- OPAL VISION MAIN BOARD** \$ CALL
- OPAL VISION VIDEO PROCESSOR** \$ TO BE RELEASED AT WORLD OF COMMODORE
- OPAL VISION VIDEO SUITE** \$ 1993
- OPAL VISION SCAN-RATE CONVERTER** \$ CALL

*Graphics Tablets Available \$CALL

"Call to arrange a demo TODAY!"

Here's just some of the **HUGE** range of software already compatible with OpalVision:
Art Department, Aladdin 4D, Calagari 24, Imagine, Image FX, MorphPlus.....



FULL RANGE OF COMMODORE COMPUTERS & ACCESSORIES \$ CALL



GREAT VALLEY PRODUCTS
Accelerators

FULL 2 YEAR FACTORY WARRANTY

A500:
* GVP A530+ 030 40Mhz FROM \$ 899 -
AVAILABLE IN MANY CONFIGURATIONS

A1200:
* GVP A1230 030 & 68882 40Mhz WITH 4MB RAM \$1249
(Cheaper models available! CALL)

A2000:
* GVP G-Force 030 25Mhz with 68882 & 1Mb RAM \$1049
* GVP G-Force 030 40Mhz with 68882 & 4Mb RAM \$1625
* GVP G-Force 040 33Mhz \$CALL

A3000:
* GVP A3000 G-Force 040 28Mhz With 2mb RAM... \$CALL

A4000 SCSI II FASTLANE CARD
SCSI II DMA CONTROLLER WITH UP TO 64Mb RAM EXPANSION
HARD DISK TRANSFER SPEEDS FROM 7 TO 33 MB PER SECOND!
(Suit A4000/A3000)

MEMORY CHIPS

2MB RAM SUIT A500/A2000 HARD DRIVES	\$ 140.00
4MB 32-BIT SIMM SUIT GVP 030 G-FORCE CARDS	\$ 349.00
1/2MB RAM SUIT COMMODORE A590/A2091	\$ 37.00
2 MB RAM SUIT COMMODORE A500/A2091	\$ 135.00

RAM EXPANSION

A500 512K RAM EXPANSION	\$ 69.00
A500 AX-RAM 4MB EXPANSION (0K)	\$ 139.00
A600 Pyramid 1Mb RAM	\$ 119.00
A600 CBM 1MB CHIP RAM EXPANSION (A601)	\$ 119.00
A600 16BIT PCM/CIA CREDIT CARD RAM 2MB	\$ 299.00
A600 16BIT PCM/CIA CREDIT CARD RAM 4MB	\$ 469.00
A1200 RAM EXPANSIONS	\$ CALL
A2000 GVP SERIES II HARD CARD UP TO 8MB RAM	\$ 325.00

LOOK DELUXE PAINT KEYBOARD OVERLAYS (MADE IN AUSTRALIA) \$19.95

CSA A1200 Twelve Gauge

The twelve gauge incorporates a high speed SCSI controller integrated into a 50MHz 68030 BURST accelerator. (NOT an EC Processor) The speed of this controller will push the band width of the A1200 when accessed directly by the 50Mhz Burst mode accelerator & will scream when used on the Amiga 1200's double AA, 32Bit Graphic Chip Set!! The unit can also be configured with 1,2,4,8,16 or 32Mb of 32Bit DRAM.

From: \$1395-

NEW!

VIDI 12

Video Digitizer Suit
All Amiga's
AGA Modes Supported

\$275-

Amiga GAMES SPECIALS Good Titles!
ON NOW! TOO MANY TO LIST HERE, FROM \$9.95 TO \$29.95

MICROBOTICS

MicroBotics MBX1200 RAM Expansion with 68881 Co-Pro 0Mb \$ 329.00
MicroBotics MBX1200z RAM Expansion with 68881 & Clock 0Mb \$ 349.00
32Bit RAM SIMMS TO SUIT MBX MICROBOTICS CARDS:
1MB = \$110.00 / 2MB = \$195.00 / 4MB = \$275.00 / 8MB = \$560.00

* A BIG hello to PRASHANT!

Melway Ref: Page 51 A8

506 Dorset Road,
Croydon, Victoria, 3136.

Ph: (03) 725 6255
 Fax: (03) 725 6766

E & OE

MVB
Computer Supplies
Dedicated to the Amiga & its Customers! Pty. Ltd.

"The AMIGA Specialists!"

Ask for Our FREE CATALOG

AUTHORISED
Commodore
DEALER

* WE DON'T JUST SELL AMIGA'S WE USE THEM.
THIS ADVERTISEMENT WAS PRODUCED ENTIRELY ON AN AMIGA COMPUTER!

* Prices Subject to change without Notice

TUPsoft

Phone: (02) 482-7040 Fax: (02) 476-5736

P.O. Box 47 Hornsby NSW 2077

DEALER ENQUIRIES WELCOME

Australian Distributors for

Final Copy II - Release 2. UK version.

Superb output from even 9 pin dot matrix printers. Scalable fonts - Built in drawing tools - Master pages - Style sheets - Mail merge - Import, resize and crop IFF (including 24 bit) - Autoflow text around graphics - 25% to 400% page view and much, much more...

Soft Faces Vol. 1-4

Outline fonts for use with Final Copy & Final Copy II. Each package contains 25 high quality typefaces.

Proper Grammar II

Check your documents for errors in grammar, style spelling and punctuation. Works with most popular word processors.

PageStream 2.2 Power Pack

The Professional Amiga* Desktop publisher - from dot matrix to Postscript. Now includes 47 outline fonts.

Hot Links / Hot Links Editions

The Data Exchange Standard. Share data in real time between Hot Links compatible programs. Hotlinks Editions includes Pageliner and BME (now with auto-trace.) The ideal companion to PageStream.

Art Expression

The Professional Illustrator program - powerful yet easy to use. Uses Soft-Logik and Type 1 Postscript fonts. Includes BME (with auto-trace).

TypeSmith

The Professional Outline Font Editor. Edit Compugraphic, PostScript and Soft-Logik fonts. Convert fonts between formats. Imports and exports DR2D structured drawings.

Ami-Back

Back up to floppy, hard disk or tape. Image backups of any partition. Compression and unattended backup etc...

Ami-Back Tools

Optimise disks, recover deleted files, repair corrupt disk structure. Fast and reliable. Online help.

PC-Task

IBM Emulator for the Amiga* - Fully multitasking. Hard disk support. Now with VGA display modes.

LinkUP!

Transfer data between your Sharp Organizer* and your Amiga*. Formatted printing of data. Superbase support.

Kill Da Virus

The Ultimate Virus Killer - kills 216 viruses.

Hard Disk Organiser

Powerful full screen menu system. Fully configurable.

PowerPacker Professional 4.0

Compress files to increase your storage capacity.

Upgrades & cross-grades available

for Final Copy II, Ami-Back & Ami-Back Tools.

CALL FOR DETAILS

*All Trade marks Acknowledged

New Syquest Drive

A new high capacity Syquest removable hard drive has been announced. The SQ3105 offers speed and removable storage on a new 3 1/2 inch format. You can store around 105Mb on these new-fangled cartridges, and with the smaller size the whole unit will happily mount in the A2000, 3000 or 4000.

The drive offers a data transfer rate at the host interface up to 4.0MB per second and data transfer rate from the head/media interface up to 2.3MB per second.

Expect to pay around \$1399 for internal or \$1499 for external.

Art Department 2.3

ASDG Incorporated announces a major upgrade to their product, *Art Department Professional*. The new release contains several firsts which increase the level of integration of the Amiga's most popular imaging tools.

Videographers now have a direct Framestore-to-D1 digital video connection using ADPro's ABEKAS digital video driver. This is today's most effective means of moving video data to and from the Amiga and has been used in such high profile productions as *Quantum Leap*, *Babylon 5* and The American Music Awards.

ADPro 2.3 also provides an exclusive direct memory link to the newest version of *Deluxe Paint* from Electronic Arts, as well as OpalVision's 24 bit-plane paint program.

ADPro has direct access to *DPaint*'s memory including its primary, secondary, and animation buffers. A similar capability is provided for *OpalPaint*.

Users of either paint system can directly load and save images in any file format which *ADPro* supports. The same is true for any of *ADPro*'s image processing capabilities. For more information contact Desktop Utilities on (06) 239 6658.

Second Internal A600/1200 Hard Drive Possible!

Unitech Electronics have devised a clever way to add a second internal IDE hard drive to the Amiga 600 and 1200. Using a special cable and mounting method, a second 2 1/2 inch drive can fit comfortably inside the case without the need to remove the floppy drive.

The cable with complete fitting instructions sells for \$49 (including sales tax). An Amiga 600 version is also available for \$35 (including sales tax).

For more information contact Unitech Electronics on (02) 820 3555.

Title	Members	Price	Price
A-Train	83.95	86.95	
Abandoned Places II	73.95	77.95	
Alien 3	64.95	67.95	
Apidya	63.95	66.95	
Andretti's Racing	63.95	66.95	
Apocalypse	64.95	67.95	
Armour Geddon 2	64.95	67.95	
Ashes of Empire	83.95	87.95	
ATAC	73.95	77.95	
B17	74.95	77.95	
Bat II	74.95	77.95	
Brabarian II	54.95	57.95	
Battle Isle	63.95	67.95	
Birds of Prey	63.95	66.95	
Black Crypt	53.95	57.95	
Bride of Dracula	73.95	77.95	
Bug Bomber	55.95	58.95	
Buzz Aldrin Space	73.95	76.95	
Catch'em	55.95	58.95	
Caesar	75.95	77.95	
Campaign	83.95	86.95	
Cannon Fodder	45.95	48.95	
Celtic Legends	54.95	57.95	
Chuck Rock II	63.95	67.95	
Civilisation	73.95	76.95	
Cover Girl Poker	63.95	66.95	
Crazy Cars 3	64.95	66.95	
Curse of Enchanter	64.95	67.95	
Dark Seed	73.95	76.95	
Dark Queen of Krynn	63.95	66.95	
Dragons Lair III	64.95	67.95	
Dune	63.95	66.95	
Dune II Battle Arakkis	64.95	67.95	
Elf	55.95	58.95	
ET'S Football	63.95	66.95	
Eye of Beholder 2	62.95	65.95	
F1 Grand Prix	73.95	76.95	
Fantastic Worlds	83.95	87.95	
Fire & Ice	63.95	66.95	
Flight of Intruder	74.95	78.95	
Graham Gouch Cricket	75.95	77.95	
Gunship 2000	84.95	87.95	
Heart of China special	36.95	39.95	
Heimdall	63.95	67.95	
Howzat (One Day)	64.95	67.95	
Humans	74.95	77.95	
Ishar-Legend fortress	74.95	77.95	
John Madden football	53.95	56.95	
KGB	45.95	48.95	
Kingmaker	64.95	67.95	
Knightmare	63.95	66.95	
Knights of the Sky	73.95	76.95	
Kyndria	63.95	67.95	
Leander	63.95	66.95	
Legacy	65.95	67.95	
Legend	72.95	75.95	
Legends of Valor	64.95	67.95	
Lemmings II Tribes	74.95	77.95	
Lethal Weapon 3	64.95	67.95	
Lotus 3	64.95	67.95	
Lure of Temptress	64.95	67.95	
Mega Fortress	72.95	76.95	
Might & Magic III	73.95	76.95	

Yes we do...

and better it!

In the event that you find a lower priced item in this magazine.

AMIGA

PRODUCTIVITY

Title	Members	Price	Price
3D Professional	319.95	339.95	
Action Replay 3	174.95	179.95	
Aladdin 4D	434.95	439.95	
Ami align. kit	64.95	67.95	
Ami Back V2.0	66.95	68.95	
Amos	122.95	127.95	
Amos 3D	85.95	89.95	
Amos Compiler	66.95	69.95	
Amos Professional	165.95	169.95	
Animation Studio	179.95	199.95	
Arexx	84.95	87.95	
Art Depart. Pro	259.95	264.95	
Art Expression	249.95	254.95	
ATalk III	65.95	68.95	
Audio Engineer+	329.95	339.95	
Audio Engn'r Jn	179.95	187.95	
Bars Pipes Pro V2	349.95	354.95	
Brilliance	Call		
Broadcast Titler 2	357.95	367.95	
Broadcast Hi-Res	459.95	464.95	
Can Do V2.0	187.95	189.95	
Can Do pro pack	46.95	49.95	
Cinemorph	269.95	274.95	
Contact V2.0	74.95	77.95	
Cross Dos 5	54.95	57.95	
Cygnus Ed Pro	94.95	97.95	
Deluxe Paint 4.1	164.95	169.95	
Deluxe Photo lab	92.95	96.95	
Deluxe Print II	92.95	96.95	
Deluxe Video III	92.95	96.95	
Design Works	103.95	107.95	
Dev Pack V3.0	144.95	147.95	
Directory Opus	109.05	112.95	
Digi-Paint 3	92.95	96.95	
Digi-Works 3D	135.95	145.95	
Distant Suns V4.1	96.95	99.95	
Drt's DTP	439.95	445.95	
Drt's Tiger cub	145.95	149.95	
Easy AMOS	84.95	87.95	
Excellence V3.0	116.95	118.95	
Final Copy V2.0	134.95	137.95	
Flow V3.0	94.95	97.95	
Giga MEM	133.95	137.95	
Halcalc	62.95	66.95	
HiSoft Basic Pro	189.95	199.95	
HiSpeed Pascal	189.95	192.95	
Home Accounts 2	129.95	134.95	
Hyperbook	132.95	137.95	
Image FX	464.95	469.95	
Imagine V2.0	292.95	296.95	
Kind Words 3.0	119.95	122.95	
Mac to DOS	122.95	126.95	
Maxiplan 4.0	162.95	166.95	
Mini Office	124.95	127.95	
Morph Plus	273.95	277.95	
Morph 4 Imagine	109.95	113.95	
Outline Fonts	259.95	269.95	
Pagesetter 3	93.95	96.95	
Pagestream 2.2	286.95	294.95	
" Business forms	45.95	47.95	
" Font Classic	189.95	194.95	
" Font Newsletter	109.95	112.95	
" Font Pack 1	74.95	77.95	
" Hotlinks V1.1	149.95	153.95	
Pascal high speed	264.95	269.95	
Pelican Press	96.95	98.95	
Pixel 3D Pro V3.0	229.95	234.95	
Power Copy Pro 3	91.95	94.95	

GVP

A500 HD/52Q	835
A500 HD/1200	1095
A2000 HD/52Q	695
A2000 HD/1200	995
G-Force 030 25MHz	1095
G-Force 030 40MHz	1695

For all GVP products, Please call.

Our objective and policy is to be as competitive as possible with the lowest prices on all our products. It is no longer possible for us to list all the products we sell. If you don't see it please call. All prices and availability are subject to change without notice.

LOGICARD MEMBERSHIP DETAILS: Just enclose \$10.00 annual fee with your initial order & receive:

- * Free game worth \$39.95.
- * Save hundreds of dollars on recommended retail prices.
- * Updated price list every 3 months.
- * Free discount vouchers and unbeatable special offers.
- * Membership privilege card and pin number.
- * Joining a club with more than 1000 members.

Mail Order Form PO Box 572 Marrickville NSW 2204

Name:

Address:

Post Code:

Phone: () Date Sent:

Payment: Bankcard Visa Mastercard

AMEX Money Order Cheque

Card No:

Exp. Date Signature:

Susan's Message Board.

"The happiest time in any person's life is when they are in red-hot pursuit of a dollar with a reasonable prospect of overtaking it."

Qty.	Product/Program Name	Computer	Disk Type	Price

Postage \$ 3.00

Total \$

Membership-No:

June93 ACAR

P.O. BOX 572 MARRICKVILLE NSW 2204

24HR ORDER

HOTLINE

016 284 793

* Cost of a local call.

Commodore 64 / 128

PRODUCTIVITY

Title	Members	Price	Price
Action Replay MK VI	115.0	119.0	
Database: Video Lib.	45.95	49.95	
Fast load Cartridge	47.95	49.95	
GEOS 64 V2.0	64.95	67.95	
GEOS 128 V2.0	74.95	77.95	
GEOCALC 64	49.95	54.95	
GEOCALC 128	57.95	59.95	
GECHART	49.95	54.95	
GEOS font pack plus	49.95	54.95	
GEOS Int'l font pack	49.95	54.95	
GEOFILE 64	49.95	54.95	
GEOFILE 128	57.95	59.95	
GEOPROGRAMMER	49.95	54.95	
GEO PUBLISH	57.95	59.95	
GateWay 64/128	75.00	79.00	
GeoCanvas	57.00	59.00	
GeoMakeBoot	19.95	19.95	
JiffyDOS 64 V6.0	105.00	109.00	
JiffyDOS 128 V6.0	125.00	129.00	
Perfect Print LQ	73.00	77.00	
RamDrive 1Mb	485.00	489.00	
RamLink 1Mb	585.00	589.00	
FD Series Floppy Drives	CALL		
HD Series Hard Drives	CALL		

CMD PRODUCTS

Pagestream 2.2	286.95	294.95	
" Business forms	45.95	47.95	
" Font Classic	189.95	194.95	
" Font Newsletter	109.95	112.95	
" Font Pack 1	74.95	77.95	
" Hotlinks V1.1	149.95	153.95	
Pascal high speed	264.95	269.95	
Pelican Press	96.95	98.95	
Pixel 3D Pro V3.0	229.95	234.95	
Power Copy Pro 3	91.95	94.95	
Amiga Rom Kernel manual:			
Amiga Hardware manual:			
\$35.00 each. SAVE \$15.00			

AMIGA SPECIALS

Scala Multimedia ..	399.00
Wordsworth V2 ..	285.00
Excellence V3.0 ..	119.00
with Organizer	
Addison Wesley Books	

Show Preview

New Releases for World of Commodore

IV24 2.0

Great Valley Products has announced that it is set to release Version 2.0 of its IV24 multifunctional video board.

At the heart of Version 2.0 is enhanced software which greatly increases the capabilities of the IV24. According to GVP, especially impressive is the new *MacroPaint 2.0* software. This real time, 16 million colour paint package features high performance painting, and a full colour, floating toolbox-style interface that gives the user the ability to move the toolbox to a more convenient location.

Also new is the ability to load and save JPEG compressed files. Painting can be done on a 24-bit image, while viewing the work in 12, 15, 18 or 21 bits for faster screen updates and lower Amiga graphics memory requirements. *MacroPaint* contains so many new features and enhancements that it comes with a brand new manual.

A newly designed custom version of *Caligari24* gives the user many more features than the original. Rendering directly to the IV24, *Caligari24* now features an unlimited number of light sources, hierarchical animation which coordinates the movements of complex objects with their primitive sub-objects, and free form definition for more realistic rendering of organic objects like plants and flowers. Broadcast rendering capabilities ensure photo realistic representation of scenes. Like *MacroPaint*, *Caligari24* also comes with a new manual.

MyLad and *Desktop Darkroom* are also included in this upgrade. *MyLad*, a switching package, enables users to enhance their video productions by utilizing a number of simple, yet creative transitions between video sources, while *Desktop Darkroom* offers image capture and complete photo retouching capabilities, as well as a full

range of special effects for image manipulation and image processing.

A separate IV24 upgrade kit for existing users should be available soon too. This major upgrade, which as been eagerly awaited by IV24 owners, consists of a ROM, several enhanced software packages and new manuals. The version 3.10 ROM allows for A4000 compatibility and also allows the new software to run on existing IV24 boards.

For more information contact Power Peripherals on (03) 532 8553, or see them on Booth H1 at the WOC Show.

OpalVision Upgrades

Centaur Development has released details and shipping dates for the enhancement modules for OpalVision. The three new enhancement modules add a wide array of previously-unannounced features to the OpalVision system.

The OpalVision Video Processor plugs directly into the Main Board. It is a real-time, 24-bit framegrabber, a professional quality genlock with chroma and luma keying and includes the OpalVision Roaster Chip for unlimited transitions, colour processing and Digital Video Effects. It also includes controlling software for all functions and a 24-bit, 35 ns character generator.

The OpalVision Video Suite is a complete audio and video mixing, switching and transcoding device. It is a 19-inch, rack mountable external unit with nine video and ten audio inputs. Video inputs and outputs are available simultaneously in RGB or Y/R-Y/B-Y, composite and S-Video. Its linear transparency key provides transparency control between two video sources on a pixel-by-pixel basis. The audio mixer is fully software sequenced with smooth fades and full 5-band stereo frequency equalization.

The OpalVision Scan-Rate Converter also plugs directly into the Main Board. It converts PAL and NTSC signals to 31kHz for non-interlaced, flicker free display of Amiga and OpalVision graphics and live video. It operates with any multi-sync/multi-scan monitor. Additionally, the Scan-Rate Converter includes a full, infinite window Time Base Corrector which operates in RGB for excellent quality.

All three of the additional modules will be available this spring and will have a suggested retail price of \$995.00 each.

OpalVision automatically self-configures for both PAL and NTSC video modes and works with the Amiga 2000, 3000, and 4000 computers. See Opal Technology at the World of Commodore Show.

SCSI-2 for A1200

ICD has announced the first VDP plug in card for an Amiga 1200 computer equipped with the Viper 1230.

Viper S2, the first VDP peripheral designed for the Viper 1230, is a full DMA SCSI-2 controller offering truly sustainable transfers of 5 MB/sec asynchronous and 10 MB/sec synchronous.

Viper 1230's DMA Port (VDP) allows the design of high speed add-ons that take full advantage of Direct Memory Access (DMA) and the speed of a Viper 1230 equipped Amiga 1200 computer.

Viper S2 plugs directly into the DMA expansion connector of the Viper 1230 board. A plastic knockout in the back of the computer is removed, Viper S2 is plugged in, and one securing screw is installed in the bottom of the computer. Nothing other than a screw driver is required for installation. Viper S2 provides a standard high density SCSI-2 connector on the back of the Amiga 1200 computer.

For those who desire only the best, an internal high density SCSI-2 connector is included to directly support a 2.5 inch SCSI hard drive inside the Amiga 1200.

A three foot SCSI-2 cable is included to connect with an external SCSI peripheral using the standard Centronics 50P connector. Viper S2 is competitively priced and unsurpassed in speed.

An Australian supplier has not yet been announced, but try Amitech on (02) 544 1874, or see them at booth C1-C2 at the World of Commodore Show.

PageStream 3.0

According to SoftLogic, the way you think about desktop publishing on the Amiga is about to change. They've just announced *PageStream 3.0*. This is not just an upgrade, but a completely new program. A feature list prepared by SoftLogic is included, so we can't vouch for its accuracy. Nevertheless, if half the specifications are correct, *PageStream 3.0* is a winner.

Partial PageStream 3.0 Feature List

x feature present o feature present/limited implementation
NB unlimited means limited only by memory
+ more formats may be added before release ? could not be confirmed

Interface	PageStream	QuarkXpress	Propage
Maximum number of open documents	unlimited	7	1
Max number of document views	unlimited	1	1
Reveal/Hide document views	x		
Moveable document view windows	x	x	
Save program defaults	x	x	
Load program defaults	x	x	
Pasteboard/bleed area	x	x	x
User-specified pasteboard size	x	x	o
Toolbox	x	x	o
set position	x	x	
set tool size	x		
set toolbox orientation	x		
Edit Toolbox	x	x	o
Number of palettes/panels	6	6	0

Measurement system options	11	7	3
Set ruler zero point and offset	x	x	o
User-specified view magnification	x	x	o
Number of view magnifications	13	6	5
View magnification zoom	x	x	x
Show/Hide invisible characters	x	x	
Undo levels	unlimited	1	1
Online help	x	x	
context sensitive	x	o	
cross-referenced ("hyper") help	x		

Document Construction

	PageStream	QuarkXpress	Propage
Number of pre-defined page sizes	9	5	6
Maximum page size (in inches)	2330" x 2330"	48" x 48"	48" x 48"
Different page sizes in a document	x		x
Change page size at any time	x	x	x
Maximum document size (in pages)	unlimited	2000	9999
Single and double sided documents	x	x	x
Page spreads	x	o	
Maximum number of master pages	unlimited	127	0
Hide master page objects	x		
Visual page arrangement	x	x	x
Divide documents into sections	x	o	
Divide sections into chapters	x		
Automatic page numbering	x	o	o
Link and unlink columns	x	x	o

Word Processing

	PageStream	QuarkXpress	ProPage
Cut, copy and paste text	x	x	x
standard keyboard shortcuts	x	x	

Available from your dealer
with our Desktop Utilities tech support /
upgrades registration form

Upgrades

- We handle upgrades for publishers below
- Look out for our registration when you buy

Distributor for

- ASDG Art Department Pro, CEd...
- Consultron CrossDOS 5.0...
- Desktop Ut. Contact 2.0...
- Gold Disk PPage, PDraw, VideoDirector..
- Inovatronics CanDo 2.0, Directory Opus...
- ReadySoft A-Max II Plus...

Desktop Utilities

PO Box 3053, Manuka, ACT 2603
Phone (06) 239 6658 Fax 239 6619 BBS 239 6659

See You again at
W. O. C.

Stand B.14

July 2nd to 4th '93

<<<<<>>>>>

— CABLES —

.A1200 Dual HardDrive
Cable for I.D.E. \$49.
A600 IDE Cable \$35.

Special Cables we
make up to suit \$Call

— ROMS —

Kickstart 2.0 ROMS \$85

Kickstart 1.3 ROMS \$40

— DRIVES —

Roctec Extnl. Drive. \$175

Citizen Intnl Drive \$169

ICD IDE Controller \$Call

2.5" IDE Hard Drive \$Call

3.5" Hard Drive \$Call

— MEMORY —

1/2 meg A500 Mem \$79

1meg A600 Mem \$179

Memory Chips \$Call

— BLANK DISKS —

KAO 3.5" Bulk 50's

Coloured Disks DS/DD \$59

KAO 3.5" Bulk 25's

Black DS/High Density \$65

— VIRUS —

K.D.V.The very Best

216 +Virus Killer \$24.95

- Small Business A/Cs

Omeros Accounting \$69

— HARDWARE —

Harris Hi-Tek the very

best monitor filters \$39.95

BIGFOOT 200watt s

of power supply \$175

Secuity Switch on/off \$10

— NEW RELEASES —

News-Flash European

Multi disk new! \$49.95

A World First ? in a A1200 !!

Researched by Unitech Electronics Pty.Ltd.

Use your 40 Mbyte and add a 40 to 210 MByte
Choose your size ! Yes you can NOW run two 2.5"
hard disk drives in your A1200, using our Special
Mini I.D.E. cable assembly & instructions Sheet

Cable assembly.....(incl. Sales Tax)\$49-00*

(Fitting & Prep/your Drive for A1200 from \$89.00 including cable !)

KICKBOARD PLUS

KICKBOARD PLUS is the ultimate and original Kickstart ROM
share board by Unitech Electronics Pty.Ltd. Designed to suit
AMIGA - A600 HD, A500, A500P, A2000, A2500 Computers.
A must for all Amiga A600 HD owners ! Simple & Easy to fit !
Instructions on disk ! Boot Hard Disk in 1.3 or 2.0 X by
following our easy to HD install 13<->20 file on the disk.
No soldering required ! Operates with 1, 2, or 3 Kickstart ROMs
Hardware selected via 2 logic chips and a 3-way external control.
Find our product on Commodore's "Grow your own Amiga 2000"
advert. All Aussi Designed and manufactured and Supported !

12 month warranty.....\$69-95*

Unitech Electronics Pty.Ltd. (Est.1978) 15 years strong !

Independent service to Commodore Computers since 1986

A Member of AUSTRALIAN AMIGA DEVELOPERS ASSOCIATION

MAIL ORDERS : P.O. BOX 137, MINTO . SYD. N.S.W. 2566

SALES : 8B TUMMUL PLACE, STANDREWS. Syd. N.S.W. 2566

BANKCARD/MASTERCARD/VISA/C.O.D. O'NIGHT COURIER

*PLUS FREIGHT-COURIER OR POST AND HANDLING & INSURANCE

PHONE ORDERS: (02) 820 - 3555

Mobile: 018 466 928 FAX YOUR ORDER: 02 603 8685 (24Hrs)

AVAILABLE FROM THE FOLLOWING RELIABLE DEALERS

NSW... AMI-TECH-(Cronulla), BaseCom Computers (Seaford)

Bitharamere-Computers. (Nr Tamworth). Computer Bits-(Armidale).

KORELLA TRADING-(Belmont). • THE GAMESMEN-(Penrith).

GRACE BROS-(City store only). • Malcolm Graham Computer-(Forster).

SHOP 4 Computer-(Wollongong). • SIGMACOM-(Miranda).

SOLUTIONS RENDERED -(Hornsby). • First Avenue Computers

-(Unanderra). Orana Home & Business Centre-(Dubbo)

EGGHEAD-(Chatswood) . West.Aust. Hedlam Computers (Leederville)

VICTORIA. Computa Magic Pty.Ltd-(Moonee Ponds) TAS: PNT:?

Trade Dealer enquiries are always welcome. Prices are subject to change without notice.

Dealer prices may vary due to transport costs etc.

See you at World Of Commodore, Exhibition Hall 5, Stand B.14

Darling Harbour Sydney. N.S.W. open 2nd till 4th July 1993

Multiple Style sheets	x	o	o	Chokes & Spreads	x	x	
Load and save style sheets	x	x	x	Knockouts & Overprints	x	x	
Find and replace text/attributes	x	x	o	Set trapping for each plate	x	x	
Find and replace style sheets	x						
Spelling checker	x	x	o	Drawing and Object Editing	PageStream	QuarkXpress	Propage
Import/Export formats	7/7+	9/6	9/0	Drawing tools	x	x	x
auto conversion of quotes	x	x		basic shapes	x	x	x
auto conversion of commas	x	x		freehand	x		
auto conversion of dashes	x	x		pen/draw tool	x		
Maximum number of tabs	unlimited	20	16	Select multiple objects	x	x	x
number of alignment options	4	4	1	add/remove from selection	x	x	
place numerically or manually	x	x	o	select behind	x	x	
right indent tab	x	x		Bring/Send to Front, Back	x	x	
User-definable tab leaders	x	x		Bring/Send Forward, Backward	x	x	
List all articles used	x	x		Cut, copy and paste	x	x	x
Typography				Move and nudge objects	x	x	
Number of outline font systems	3	2	1	Step and repeat duplication	x	x	
Font sizes	1-50,000	2-720	2-720	Rotate and skew objects	x	x	o
increments	0.01 pts	0.001 pts	0.125 pts	rotation increments	0.001^	0.001^	1^
horizontally scale text	x	x		Group/Ungroup objects	x	x	o
Align text vertically	x	x		Lock/Unlock objects	x	x	o
Indents and outdents	x	x	x	Distribute objects	x	x	
Auto/Manual hyphenation	x	x	o	Set color/line/fill of objects	x	o	o
hyphenation controls	x	x	x	Bitmap fills	x		
Auto/Manual kerning	x	x	o	Gradient fills	x	o	
edit kerning pairs	x	x	x	Object fills	x		
Auto/Manual tracking	x	x	o	Text runaround objects	x	x	o
Absolute and relative leading	x	x	x	Extend objects across page spreads	x	x	
increments	0.01 pts	0.001 pts	0.01 pts				
Frameless text	x			Page Layout	PageStream	QuarkXpress	Propage
convert frameless <-> framed	x			Margin and column guides	x	x	
Convert shapes to text columns	x			Object guides	x	x	
Apply color and fill-styles to text	x	o	o	snap-to-guides, snap distance	x	x	
Automatic drop caps	x	x	o	Grid	x	x	x
Automatic bulleted paragraphs	x			snap-to-grid	x	x	x
Graphics							
Import Bitmapped Pictures	x	x	x	Printing	PageStream	QuarkXpress	Propage
number of formats	6+	8?	5	Current page, range, even/odd	x	x	o
set frequency, angle and pattern	x	x		Printer spreads	x		
contrast and posting control	x	x		Print CMYK/mechanical separations	x	x	o
bitmap fencing for text flow	x	x		Plate control	x	x	
display bitmaps in color	x	x	x	Tiling, thumbnails, crop/reg	x	x	x
externally linked bitmaps	x	x	x	Print PostScript to disk	x	x	x
Import Structured Drawings	x	x	x	Render to bitmapped picture	x		
number of formats	5+	4	2	Custom Printer Drivers	x		x
dissolve into paths and shapes	x			PostScript	x		x
Import EPS Illustrations	x	x	x	Hewlett-Packard inkjet/laser	x		
interpretable EPS formats	2+	0	3	Epson compatibles	x		
show bitmap preview TIFF/PICT	x	x	o	Plotter support	x		
Make pages into EPS files	x	x	x	PPD support	x	x	
List graphics in a document	x	x	x				
Colors				Environment	PageStream	QuarkXpress	Propage
Number of color models	6	6	2	Open program architecture (for adding extensions)	x	x	
24 bit color support	x	x	x	Text (article) editor	x		x
Create process and spot colors	x	x	x	Picture (bitmap) editor	x		o
Color Tints	x	x		HotLinks compatible	x	x	
shade increments	0.01%	0.1%		ARexx (scripting) compatible	x		o
UCR/GCR	x	x	x	ARexx (scripting) record	x		
Set screen angle and frequency	x	x	x	AGA compatible	x	n/a	o
Trapping				Workbench screen compatible	x	n/a	x
Automatic trapping	x	x		Public screen compatible	x	n/a	
User-definable trapping	x	x		create public screens	x	n/a	
				Custom screen compatible	x	n/a	x
				Follows interface style guidelines	x	x	
				Price	\$299.95	\$895	\$299.95

Hardware requirements are an Amiga with hard drive, 2MB of memory (512K chip), and AmigaDOS 1.3 or higher. If you are a registered owner of a Soft-Logik product, you will be notified of the release of *PageStream 3.0* (expected in late summer '93). If you have purchased *PageStream 2.2* on or after March 15, 1993, you are entitled to a free upgrade. Contact SoftLogik direct (see details in the front of your user manual), or talk to your local Commodore dealer for more information. Booth E9 at the World of Commodore Show.

New A1200 Accelerator

ICD's new Viper 1230 is designed to give the popular Amiga 1200 the performance of a workstation. Viper 1230 offers Amiga 1200 owner a 68030 accelerator supporting high speed memory expansion, an FPU coprocessor socket, a battery backed-up real-time clock, and a unique 16-bit Direct Memory Access (DMA) port for further expansions.

Viper 1230 uses the power of the

Motorola 68030 and supports both EC and MMU versions from 40 to 50 MHz. When compared to the A1200's stock 68EC020 running at 14 MHz, the larger cache and higher speed of the Viper 1230 processor will make applications fly.

Up to 32 MB of fast RAM can easily be added to Viper 1230 using industry standard 32-bit wide 72-pin SIMM modules. Two high quality SIMM sockets are on board for memory expansion. Burst mode, for top speed, is fully supported using low cost, page mode DRAM.

With the addition of a high speed Motorola 68882 math coprocessor (FPU), all floating point math routines will run at near warp speed. Applications such as animation, ray tracing, image processing, DTP, and CAD will show an amazing improvement.

The battery backed-up clock that is missing from the A1200 can be found on Viper 1230.

Viper's DMA Port (VDP) allows many opportunities for high speed add-ons of the future. Products like a SCSI-2 controller, DSP board, modem, or network-

ing card could be developed to accommodate this port.

The RAM, CPU, FPU, and the clock battery are all socketed and changeable using industry standard parts. The low-cost 40 MHz 68EC030 is supported as well as the 50 MHz 68030 for those who want the ultimate in performance with an MMU. Both 40 and 50 MHz FPU's are supported. Low-cost industry standard SIMMs are used for memory expansion. Viper 1230 and VDP boards are installed without removing the top of the computer. This ensures that Commodore's warranty remains intact.

An Australian supplier has not been confirmed, but for further information, contact Amitech (02) 544 1874, or see them at Booth C1-C2 at the World of Commodore Show.

Stop Press

Comprepair will be at the WOC with all the new products from Rambo, Golden Image, Coombe Valley Software, DKB and Electronic Design. □

*What you thought
you wanted.*

Video
Toaster

*What you really
wanted all along.*

OpalVision
Seeing is Believing

World Premiere
Video Processor, Roaster Chip, Video Suite

Stand D1, World of Commodore Show, Darling Harbour, Sydney, July 2 & 4, 1993.

Please note our stand will not be open on Saturday July 3.

Opal Technology Pty Ltd. (02) 899 4322

Software Review

3D Animation with Aladdin

by Karl Dewet

There's literally a myriad of 3D drawing and rendering programs for the Amiga. You've probably marvelled at the realistic pictures rendered using *Imagine* or *Real 3D*. It can take many long hours to draw those intricate objects and then hours waiting in anticipation for the image to be rendered. If you're like me and have no patience, but love those 3D images, there are two solutions to our problem.

The first is to go out and buy an accelerator card or a much faster machine. Now hands up everyone with a couple of thousand dollars to throw away ... I didn't think so. This option is not only expensive, but also leaves you without the funds to buy a 3D package.

The second solution is to buy *Aladdin*. It gives excellent end results without the long waiting associated with this type of program. In my opinion, *Aladdin* is also the easiest for a beginner to use.

Features

It's hard to know what to start talking about, because *Aladdin* has so many features. The most important point is clarify is what *Aladdin* doesn't do. Namely, it doesn't ray-trace.

(If you don't know what Ray-Tracing is, take a break and read the nice little box with this article.) It seems that to be a successful 3D modelling/rendering package the program must Ray-trace!

Although Ray-Tracing achieves some remarkable results it is such a maths intensive process that it is often just too slow. From the inception of *Draw-4D* it was clear that the makers have tried to achieve a trade-off between a lightning fast renderer and a package which gives the best looking images.

I think that this trade-off has worked well, because Ray-Tracing is just too slow for the average user. So what *Aladdin* does is employ virtually every

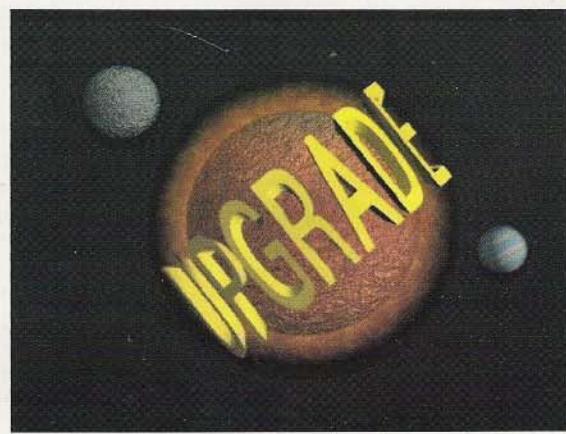
other method for shading and rendering available to achieve truly awesome results. The two shading methods it uses are called Phong and Gouraud.

Apart from Ray-Tracing, Phong shading is the most popular type of shading method used in this type of program. So if you have used *Calligari*, *Draw-4D*, or *Imagine* then you will be familiar with the way *Aladdin* colours in your objects. Phong uses a simple trigonometric theorem to set the brightness of the polygons which make up an object and also blends the edges of adjacent polys so that you can't see a transition from one poly to another. Gouraud does something similar, but is less maths intensive and therefore faster.

The reason why people want their 3D package to Ray-Trace is because it treats your objects as if they were in the real world, so they cast shadows. *Aladdin* casts shadows by using the same methods Ray-Tracing uses, but only for this purpose so it retains its speed. Ray-Traced objects reflect light from light sources and light bouncing off other objects, *Aladdin* does this also. If your object is somewhat transparent light will pass through it, just like a Ray-Tracer. So all the reasons why you wanted a Ray-Tracer can be fulfilled by *Aladdin*.

Vital Differences

Although *Aladdin* does do all of the above it must be understood that it does not do it in the same way as a ray-tracer. What this means is that under some circumstances the same model ren-



**NEW 1940
Bi-Sync Monitor**

Ideal for Amiga
1200 or 4000
\$539.00

All the Latest
Releases

Latest
magazines!

Air freighted in
Amiga Format,
Amiga Shopper &
Amiga World.

**Chaos
Engine**

Gauntlet meets Gods!
Simply one of the best
shoot em' ups to hit the
market. IN STOCK?
\$79.95

ECC HEAD

A4000/030
120MB Hard Drive
\$2995.00

Sydney's Ultimate

AMIGA
OUTLET

No 1 for
Games

**Over 17,000³ feet of computer
software, hardware & add ons!**

Open 7 Days

Try Us!

**1 Railway St, Chatswood. Tel 415 3355 Fax 415 3383
(Right at Chatswood station. Mail orders welcome.)**

dered in Aladdin and a ray-tracer will look different. Unfortunately the ray-traced image will be correct, which doesn't really matter unless you are trying to solve a physics problem.

On a final note on *Aladdin*'s rendering capabilities, it is quite a shame that you can't exit to workbench and multitask while your image renders. This means that as much as you love your Amiga, you're forced to watch the image develop until it is finally shaded.

The Interface

Of all *Aladdin*'s features the interface is the one which seems to be the most controversial. Some people like it, but most that I talked to hate it. Why? Because it is different to the ones used in *Imagine* and *Real 3D*. *Aladdin* uses something called a 'direct window into 3D space'. This is a fancy way of saying that you edit your objects right there in 3D form. This makes it difficult to create complex objects because you must draw the whole object, not just in three views as in *Imagine*.

The tools are set out *DPaint* style down the right side of the screen, and everything else is in pulldowns. The interface may not be easy to use at first but it is very full featured.

Aladdin's Magic

I found that there were two quite powerful features presented by *Aladdin* which, in themselves represent what could be a good reason to buy the program. The first is the ability to create gaseous objects (amazing!), and the second is the ability to put waves onto your objects.

Once you have spent a few hours playing with gases (and gone through a very helpful tutorial from the manual) you will start creating some very impressive effects, such as the gas I generated for this article. Gases allow you to change the transparency of space wherever the gas exists without having to modify the transparency or colour of your object.

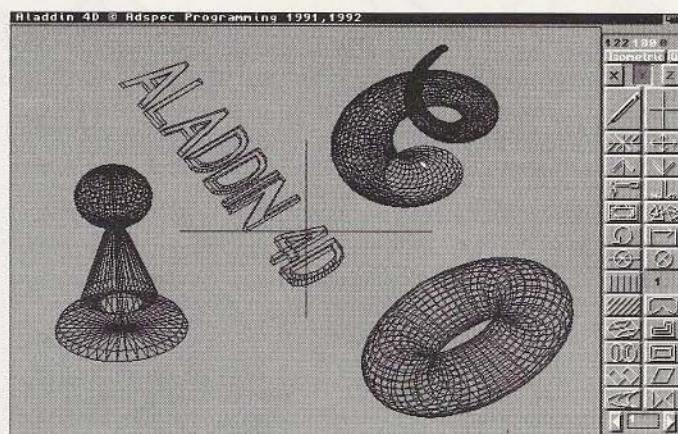
For example you could do an animation of some type of spacecraft flying

from empty space into a cloud of turbulent gas and the view of your object would be obscured by the colour and density of the gas. This application must be seen to be believed.

Rub the lamp once more and you will be transported into another world, a world where your objects come to life, where their hard textured skin has waves running through them! Waves? Yes waves, the kind you learned about at school in physics.

Any polygon or object you create can have a wave or many waves added to it easily. Not just one type of waves, but a multitude of them. Linear x, y or z, spherical, multi or bumps. Simply adding two or three waves to a simple Torus can generate an image with what seems to be a randomly curved surface.

Once you see a few rendered waves you will want to use them in all your work, because the random curves give your images a subtle touch of reality



which is seldom found in computer graphics. Hours can be spent marvelling at the curves and shadows cast by waves.

Tainted Lamp?

Well not really. But there are a few small problems I found while using *Aladdin*. The most annoying of these (as I have stated) is the inability to exit the render window while your image renders. Although this may seem trivial it made it impossible for me to render an image for this article while I typed the review itself on a word processor.

Another problem which I came across was that *Aladdin* would not render in Ham8 on the A4000 but happily (and very quickly) did so on the A1200 that I used. This one escapes me, but I'm sure it will be sorted out soon.

Other small problems were encountered, but as I have found out perseverance and a bit of long hard thinking usually overcomes these.

Which Amiga for Aladdin?

Aladdin was tested on five different machines. The first was the A4000 with Opalvision, the results were nothing less than amazing. The time to render objects was so fast I thought I was doing something wrong. Animation was literally limited by the amount of hard drive space available.

If you have an A4000 you should

WHAT IS RAYTRACING?

To create true to life images from the models you create, many 3D rendering programs employ raytracing. Instead of simply shading each object, the scene is created by tracing the path of light around the scene. Each object may be set to absorb, reflect or allow to pass a certain amount of light. The resulting reflections, shadows and subtle shading produce very realistic images.

also have *Aladdin*. It's that simple, because it's the best way to show off the power of your machine.

Next in line was the trusty A500, and an A600. *Aladdin* was a bit sluggish on these slow machines, you really need something more to have fun with *Aladdin*, although it still worked fine as long as you had enough RAM. Luckily for me I did have another fast machine on my desk.

The 68030 powered A2000, with four megs of RAM. Not very impressive after playing with the A4000, but more powerful than most Amigas. On this machine *Aladdin* was lightning fast and could be set the task of tediously rendering frame after frame of a long animation while we worked on the A4000.

There is one machine where *Aladdin* really made my jaw drop and that was on the A1200. Firstly rendering is very fast. Secondly the Ham8 output was very, very similar in appearance to 24-bit output. For such an inexpensive ma-

chine it seemed ludicrous that it would be able to do this type of thing, let alone do it so well.

Aladdin should be sold with the A1200 as a graphics power station, with lots of "spiffy" pictures on the box. It would sell very quickly. Ham8 really is as good as it is advertised to be, and for all you A1200 owners out there *Aladdin* was made for you.

Unmatched Quality

I do an awful lot of 3D modelling and rendering, in fact it is about all I use the Amigas for, and I have found that there is one main factor which contributes to the quality of my output images. This factor is feedback time. That is the time it takes to render an image, to see what is wrong with it, fix it, then render it again. If feedback due to rendering time is slow, a small mistake like the wrong lighting or even forgetting an object instantly sets you back many

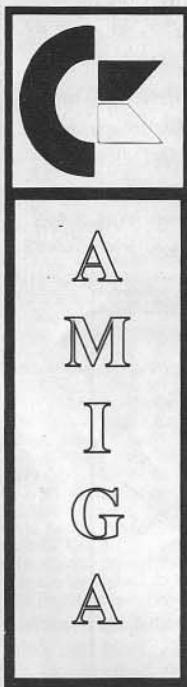
hours. In *Aladdin* the rendering time would usually be less than an hour for a short animation. What this means is that not only can you fix up your stupid mistakes much quicker, you can also perfect your images by saying "what if I just change this a bit".

The images created for this article were redone about seven or eight times each to get the desired effect perfectly. As you can see, there is no more powerful tool in a rendering package than feedback.

Aladdin is a powerful tool for those of us who are obsessed with high end graphic output and have little time to waste. Image quality is second to none and perfect for any presentations you would want to do, or for titling your home videos with a touch of finesse. For your hard earned cash *Aladdin* cannot be beat.

(Review copy supplied direct from the publisher. Contact your local Amiga dealer for pricing and availability.) □

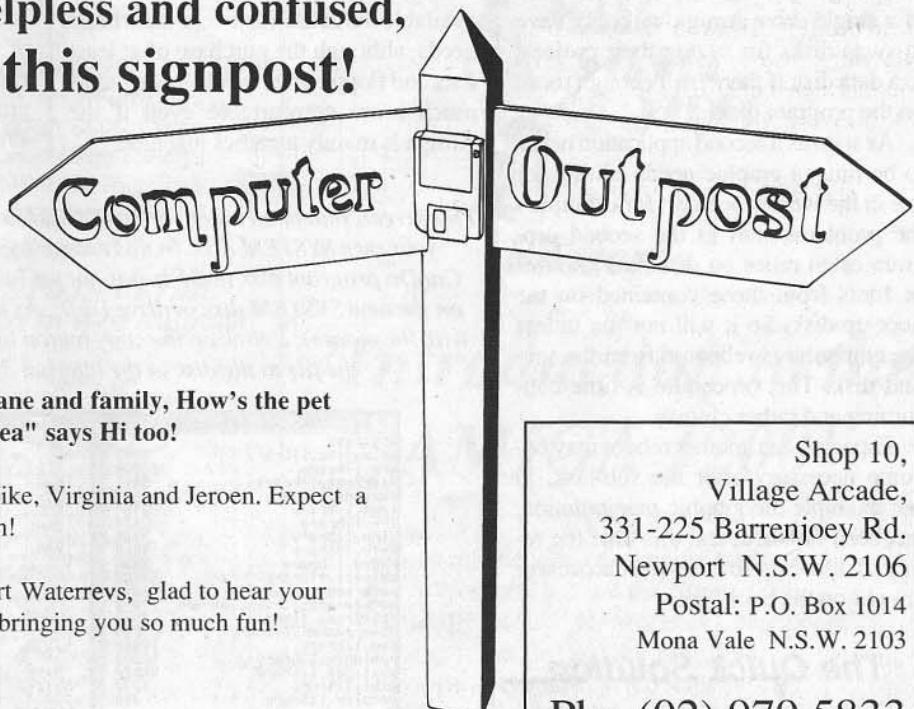
If you feel lost, helpless and confused, Just follow this signpost!



Hello Louis Lane and family, How's the pet Duck? "No Idea" says Hi too!

Yo, Dougal, Mike, Virginia and Jeroen. Expect a Phone call soon!

G'day to Robert Waterreys, glad to hear your Amiga 4000's bringing you so much fun!



Shop 10,
Village Arcade,
331-225 Barrenjoey Rd.
Newport N.S.W. 2106
Postal: P.O. Box 1014
Mona Vale N.S.W. 2103

Ph: (02) 979 5833
Fax:(02) 997 5641

How to Beat those Disk Swapping Blues

Tired of swapping disks all the time, but a hard drive's out of your budget? Don't worry, living with floppy disks doesn't have to ruin your nerves. Heiko Wynen tells you how to keep your sanity.

Running any computer on floppy disks only can be a frustrating task nowadays. The Amiga has an unpleasant habit of testing its user's patience with the notorious "Please insert volume ..." requester.

Programs need certain software libraries and device drivers to function, which are not part of the program itself but need to be accessed on the disk with which the machine was booted.

Consequently, if a program comes on a single bootable disk, even owners of a single drive Amiga will only have to swap disks for saving their projects to a data disk if there isn't enough room on the program disk.

As soon as a second application needs to be run - a graphic needs editing for use in the wordprocessor, for example - the problems start as the second program often relies on different libraries or fonts from those contained on the boot-up disk. So it will not run unless the computer is rebooted from the second disk. This procedure is time consuming and rather clumsy.

Especially as another reboot may become necessary after the sub-task, in our example the graphic manipulation, has been finished, and this time the required libraries for the wordprocessor are not on the boot disk.

The Quick Solution

Obviously, the simplest and by far the most elegant solution to this problem is the installation of a hard disk containing all the commonly used programs and every file required for fault-

less operation. No more unnecessary booting from floppy, much swifter access times and the huge storage capacity of such a hard drive make a hard drive one of the Amiga's most desirable accessories.

Unfortunately, however, even a bargain priced hard drive may still be difficult to justify from an economical point of view if the computer is only used for the odd productivity job in the home.

Under those circumstances it may well be worthwhile to customise the available software for one's individual needs, although the purchase of at least a second floppy drive would make things much more comfortable even if the Amiga is mainly a games machine.

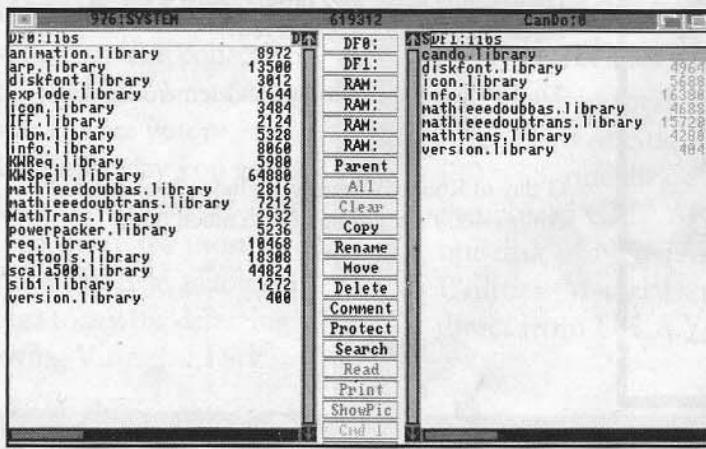
If you are horrified at even thinking of having to use the CLI, don't panic. Customising your software can be made very simple by using just a couple of cheap public domain utilities, available from most good PD libraries like Prime Artifax. If you have never tried any of the often well presented and powerful programs available for nothing but a handling fee or very reasonable shareware contribution, this is just the right opportunity.

Two titles to help make Amiga file handling transparent are *DiskMaster* and *SnooDOS*. While the latter can be a great help if something goes wrong and a program fails to work as expected, *DiskMaster* is an easy to understand and easy to use file management utility. There are similar, more sophisticated and extensively user configurable competitors available, like *SID*, but they tend to be somewhat confusing for the newcomer.

The System Against the Blues

To solve the disk swapping dilemma of single floppy systems is simple. Equipped with a few handy utility programs and a little knowledge of how Workbench is organised you can quickly

This screen shot of an older version "DiskMaster" shows how simple it is to make your own SYSTEM disk. In this example the CanDo.library on the original CanDo program disk in DF1: has not yet been transferred to the LIBS directory on the new SYSTEM disk in drive DF0:. As it is already highlighted (clicked on with the mouse), a click on the copy button in the centre of the screen would add the file to the disk in the internal drive in the right location.





DON QUIXOTE SOFTWARE

The AMIGA and CDTV Specialists

Please telephone for up to date prices on both HARDWARE and SOFTWARE.

All available CDTV Software & Peripherals in stock.

LEISURE SOFTWARE (in Stock)

Addams Family	59.95
Age	39.95
Alcatraz	39.95
Another World	59.95
Baron Baldric	14.95
B.C. Kid	59.95
Betrayal	59.95
Bill's Tomato Game	59.95
Blockbuster	14.95
Carl Lewis Challenge	59.95
Castle of Dr Brain	69.95
Curse of Enchantra	69.95
Deliverance	29.95
Design a saurus	39.95
Die Hard II	59.95
DO Jo Dan	59.95
Dune	59.95
Dungeon Master / Chaos	69.95
Dyna-Blasters	69.95
Fern Gully	19.95
Flight of the Intruder	69.95
Future Bike	29.95
Fuzzball	19.95
Hunter	59.95
KGB	49.95
Kid Gloves II	14.95
Into the Eagles Nest	29.95
Lemmings II	79.95
Mad TV	49.95
Mixed Up Mother Goose	59.95
Monkey Island 2	69.95
Nebulus II	59.95
Nic Faldo's Golf	69.95
Nigel Mansell's	59.95
Oh No More Lemmings Data Disk	
Oh No More Lemmings Stand Alone	
Olk	59.95
PacLand	19.95
PacMania	19.95
Parasol Stars	59.95
PP Hammer	29.95
Putty	59.95
Red Zone	59.95
Road Rash	69.95
Robo Sport	59.95
Roger Rabbit II	69.95
Rolling Ronnie	19.95
Shadowlands	59.95
Shoot em up cons kit	19.95
Silly Putty	69.95
Sim Earth	79.95
Sky High Stuntman	19.95
Space 1889	63.95
Space Crusade	59.95
Spike in Transylvania	19.95
SWIV	38.95
The Addams Family	55.95
The Cool Croc Twins	55.95
Treasure Trap	19.95
Treasures of the Savage	59.95
Warriors of Releyn	63.95
World Cup Soccer	19.95
Wiz Kid	

Plus many, many more !

C64 Titles available.

C64 CD (30 Golden Oldies) 19.95
Plus others!

PRICES DO NOT
INCLUDE POSTAGE,
POST- \$5.00
COURIER- \$9.00

*Extra for Large hardware



MAIL ORDER (076) 391578

OR WRITE TO
P.O. BOX 786, TOOWOOMBA, QLD. 4350

HARDWARE

Amiga 600	790.00
Amiga 600HD	990.00
Amiga 1200HD(W/Trade)	1199.00
Amiga 2000HD	
Amiga 3000 120Mb HD	2900.00
Amiga 4000 HD	
Qtronix Trackball (Amiga)	59.95
Parnet Cable & Software	32.95
2Mb RAM for A500 (512Kpop)	99
2Mb RAM for A500 (2Mb pop)	199
Serial Port Surge Protector	

Not Here?ASK!

SPECIAL \$160
May/June Only
The Connoisseur (disk)
54 disk collection (including disk box).
Over 500 works of art, over 100 artists. 9 periods of art, complete with music.
This is an unbelievable offer. The entire collection for \$160.
Education price: \$130
Don't delay!

CDTV Hard Drive

65 MB Hard disk drive
Includes:
SCSI Interface hardware
1.3 Enhancer Kit
now in stock for CDTV!
Please call for info.

**\$55.00
ORDER NOW**

MAVERICK
THE ULTIMATE IN COPIERS
Hundreds of parameters
A fully featured copying service

Now distributing POWER!

Power Computing Products now in Australia

Power Scanners
Power Drives
Power Memory Upgrades

Power drives include Blitz hardware/software backup, along with anti-click and anti-virus.



Call for the latest prices!

DATTEL

ACTION REPLAY A500 MKIII
ACTION REPLAY A2000
AMIGA TABLET + Stylus
VIDEO DIGITIZER

ATARI
AMIGA
COMMODORE C64

TOOWOOMBA STORE, 25a Russell St.

For all your AMIGA needs



DEALER ENQUIRIES WELCOME



THE DELUXE WORK CENTRE

FOR THE AMIGA A500
AND SOON A600 & CDTV

FULL METAL CONSTRUCTION

Comes with:

\$119.95

plus p/h



AS ADVERTISED IN U.K. MAGAZINES
now produced in AUSTRALIA

Compilation Packs

10 Great Games	69.95
AD&D Collectors	19.95
Amiga Star Collection	49.95
Big Box 2	69.95
Champions	49.95
Combat Classics	
Fantastic Worlds	79.95
Head to Head	89.95
Movie Stars	
Premier Pack	14.95
Strategy Masters	79.95
Super Fighter	
Super Sim Pack	79.95

PREY A deadly Alien

Encounter of the CDTV kind!

PRODUCTIVITY SOFTWARE

AddMenu	49.95
Ami Back	99.95
Audio Gallery (french)	88.95
Back To Basics	55.00
Deluxe Paint V.5	249.95
Fractions	34.95
Gold Disk Type Font Pack	49.95
Mini Office 2	
NoVirus	49.95
PageStream V2.2x	
Scala	399.00
Word Construction Set	69.95
Workbench Management-System	49.95

CDTV Titles

The Connoisseur \$89.95
Fine art collection of over 500 pieces of art, covering nine periods. Over 100 artist represented, (also available in disk sets at \$199.95)

CDPD \$55.00

Fish disks 1-660, includes thousands of PD and shareware programs.

CDPD II \$55.00

Fish disks 661-760, plus the JAM, AB20 and SCOPE libraries, more PD and tracker modules as well!

CD DEMO'S \$79.95

Over 12000 files on the one disk, including over 4000 sound samples, more than 1000 tracker mods, Fonts, Graphics and lots of Clip-Art for DTP.

Plus

Advanced Military Systems
Battle Chess 29.95

Case of the Cautious Condor

Complete Works of Shakespeare

Defender of the Crown

Dr Wellman

E.S.S. Mega

Falcon

Fantastic Voyage

Fractal Universe 69.95

Fred Fish 1-700

Fred Fish on-line(BBS USE)

Funschool III

Global Chaos

Guiness disk of records

Guy Spy

Hutchinsons Encyclopedia

Illustrated Holy Bible

Japan World 99.95

Lemmings

Logical

Mud Puddle

Music Maker

My Paint

NASA, the 25th year

Prehistoric

Raffles

Scary Poems for Rotten Kids

Sherlock Holmes Consulting Det.

Sim City

Snoopy

Team Yankee

The Tale of Peter Rabbit

Trivial Pursuit

Turrican 1

Turrican 2

Wrath of the Demon

Now stocking,
John Rowes Templates
(for DPaint owners)

create a Workbench disk that contains all the needed fonts, libraries, devices and special programs expected by other programs you'll be running.

The first step is to make a backup of your standard Workbench disk. Using the diskcopy command outlined in the manual may be your only choice, however you'll probably have to make a few disk swaps. Some commercial and public domain copy program use available RAM as a buffer, copying as much of the first disk into memory as possible before asking for the destination disk. This is a big time saver.

Once you have a backup, check the name of the disk. If you used diskcopy it will be called "Copy of" followed by the original name. Be sure to rename the disk to something easier, like SYSTEM or Workbench.

Now you need to make some space to add a few things to this disk. We've had entire articles on this subject before. You can make room from Workbench or using a program like *Diskmaster*, which gives your CLI command power using the mouse.

From Workbench you can safely delete most of the program in the Tools and Utility drawer. Be sure to leave any behind you know you use. From *Diskmaster* you can also delete any fonts you don't use from the fonts directory. These two steps should give you plenty of extra room. You can get even more space by compressing files on your Workbench using *Imploder* or *PowerPacker*.

Adding to your Workbench

Now you've got a customised Workbench, the next step is to add to it the things your programs are demanding that require you swap disks. You need to find any libraries, fonts, C programs or anything else needed from the disk you normally boot from to run the program. For example, *Deluxe Paint IV* uses a special font called Dpaint. If you boot you Amiga from a normal Workbench and then try to run *Deluxe Paint*, it will complain about not finding the Dpaint font.

```

Workbench Screen
SnoopDOS V1.4. Copyright © Eddy Carroll, Oct 1991. Freely distributable.

Workbench CD SYSTEM:
Workbench Open .info OLD Okay
Workbench Open ShortCut.info OLD Okay
Workbench Open Shell.info OLD Okay
Workbench Open Preferences.info OLD Okay
Workbench Open TextED.info OLD Okay
Workbench Open Disk.info OLD Okay
Workbench Open System.info OLD Okay
Workbench Open Empty.info OLD Okay
Workbench CD SYSTEM:
Workbench CD HBasic:
Workbench Load HB.Compiler Okay
HB.Compiler CD SYSTEM:libs
HB.Compiler Load hisoftbasic.library >>>
HB.Compiler Open hisoftbasic.library OLD Fail
HB.Compiler Open hisoftbasic.library.pp OLD Fail
> (Done)
HB.Compiler CD SYSTEM:

```

When a program refuses to run, "SnoopDOS" lists exactly which files are missing and where they should be located.

So, you know what to do! Copy the dpaint.font and dpaint directory from the *Deluxe Paint* disk fonts directory onto your new Workbench font directory. You can do this in *Diskmaster*. With one drive, copy the files you need to your RAM: drive, then swap disks and copy them from RAM: to the Workbench. Be sure to put them in the right place, in this case, the fonts directory.

Finding out what Files are Needed

Deluxe Paint is a good example of a program which makes it easy to see what's missing. Others are a lot trickier. A little utility we use called *SnoopDOS* is very handy here. Simply run *SnoopDOS* first, then run the program you're having trouble with after booting from your new Workbench. *SnoopDOS* will report what files the program is having trouble loading and where it's trying to load them from.

Now you know what's missing, once again use *Diskmaster* to copy the missing files from the original program boot disk onto your new Workbench. Make sure the files go into the corresponding place.

Once you've got all the bits you need onto your new Workbench, try adding *Diskmaster* or any other utilities you

need from time to time too. That way, you'll have one disk you can run your Amiga with that contains most of the day to day things you need.

Now when you need *Deluxe Paint* when you're in the middle of wordprocessing, you can bring Workbench to the front, pop in the disk, run the program and *Deluxe Paint* will happily find all it needs on your Workbench disk. You'll still have to do a little disk swapping but at least everything will now run!

How to Totally Eliminate Swapping

This is a little trickier, as you will need to know exactly what parts of Workbench you need and just what you can do without. The Workbench 1.3 Enhancer manual has a section in it on RAD: drives which covers this. A good clue is to look at what is on the boot disk for the programs you run. Usually they only contain the minimum needed.

Make a backup of your Workbench as before and then delete as much as possible. Move as many programs and applications as you can onto this new disk, plus any special fonts, libraries and so on as mentioned before. Now you have a bootable Workbench with everything you need. □

How would you like a 105Mb 3.5" removable hard disk.

The **NEW 3.5" SCSI 2** Syquest removable hard drives are reliable, value for money, easy to install, and very quick. For *security* and *convenience*, for *backup* and *portability* a Syquest drive is the answer. The **NEW SCSI 2** Syquest 3.5" drives are available as external and internal models and take full advantage of the **SCSI 2** standards of the new Amiga machines to achieve 4Mb/sec transfer rates. CPA have a limited number units. Call now for more information.

Internal unit with one cartridge	\$1299.00
External unit with one cartridge	\$1399.00

NEW Quantum SCSI 2

105 - 550 - 1.2Gig **SCSI 2**. The fastest and highest quality hard drives available for the power user. • 10Meg per second transfer • Access 9ms • 5Year warranty
Price on Application.

Tools for Graphics & Video

OpalVision

The 24-bit video & graphics solution.



Enhancement modules

- Video Roaster Chip
- Frame Grabber/Genlock
- Scan Rate Converter
- Production Switcher

Harlequin 32-Bit Framebuffer

As used by Channel 9, Broadcast quality workstation performance. Buffering loads 2 24-bit images at once. 24-bit paint, animation, raytracing, morphing, modelling, single frame recording.

iV24 Version 2.0

The serious Video Interface Unit with all addons available NOW.

Digital Edit Master

Coming soon

Sunrise AD 516 16 bit Sound cards.

Calcomp Digitising tablet

VLab Frame Grabbers

Pro. Genlocks

Vivid 24

Super high resolution graphics rendering engine. Render 100,000 Gouraud shaded polygons/sec at 160 MFLOPS, 24-bit colour images up to 2048 x 2048. Plus - 8-bit Alpha Channel - Broadcast Quality Video Encoder - 16 MB Video / 8 MB Program Memory.

Soon full support for **Real 3D Version 2**.

EMPLANT \$799.00

Mac/PC emulator board with optional Mac high speed Serial ports, Apple Talk™ & SCSI. *Full Amiga colour in AGA & 24-bit, plus Multi-tasking.* 100% compatible with most Mac and PC Software. *80-85% speed of Quadra!*

S-VHS/Betacam A/B roll edit suite tools

CPA Amiga Stop Frame Controller \$1200.00

The affordable solution to computer animation for desktop video.

- Stop frame/Time Lapse anims
- Video / Audio 1 / 2 capability
- Full 24-bit colour, HAM, EHB & AGA
- Make and edit Stop Frame edit dec'n lists
- AREXX control. More ...
- Voted world's *best* by professionals.

New Equipment.

Personal TBCII cards (affordable Pro std')
Personal V-scope Waveform Monitors
Sony & NEC Multisync Monitors

NEW JVC, Sony & Panasonic Pro Video editors, cameras & VCRs at unbeatable prices.

Video Hire.

Cameras, VCR's, TBC's and more.



Software

CPA sells and provides *support* and *training* for **Real 3D V2**, (the most powerful professional Graphics software available) **SCALA**, **Imagine**, **OpalVision**, **Morph Plus** & much more.

Wedding Disks (5 disk set of Anims, Clip Art & effects for wedding videos)

If you would like *awesome service* in setting up an Amiga 24-Bit System, a video edit or animation suite call Garry.

If you need any **GVP** products like the **MBX A1200 030/040 Accelerator** or a new Hard drive, a RAM upgrade or a great *trade-in* deal on a New Amiga - call Garry.

For the **BEST** prices on

A4000, A1200

and the **NEW**

1942 Multisync Monitors & 4091 SCSI 2 Cards

FREE delivery Australia-wide

CPA Service Specialties

- LOGO Design,
- Digitising,
- Rendering,
- Animation,
- Stop frame animation.



Commercial Production of Australia
P.O. Box 187, Vaucluse NSW 2030

Ph. (02) 337 6255

Fax (02) 337 6255

Australia's # 1 Professional AMIGA & Video Dealer

The Animation Workshop

Cut, Splice, Scale, Delay in a mouse click

by Dennis Nicholson

To say that *Anim Workshop*, or *AWorks* as the manual prefers to call it, is the answer to every Amiga animator's dream is an understatement! This program has arrived on our shores completely unannounced, but after using it for a very short time I was asking myself the question ... "Where have you been all my computing life?"

The package says "You can supercharge your work like never before" - believe me, it's true!

Have you ever wished you could alter the resolution of an anim file painlessly? Imagine you have just spent three months creating your 1000 frame 'master work' in high resolution mode (640 x 512 x 16 for example) for the world to see, but alas, you cannot show the world because it's too large to distribute on one disk. If only you had made it in low resolution instead.

You could now convert the 1000 frame anim file back to individual IFF images, laboriously re-size each image and finally produce another anim in the low-res mode. This could take you another three months. Think of the coffee expense!

You could start all over again and spend many more long hours manufacturing a new low-res version. Or you could invite the world to your home to see your original high-res version.

Or just maybe you'll purchase this newfangled program called *Anim Workshop* to do all the hard slogging for you. Believe me when I say you will opt for the latter once you see it in operation!

No problem for *AWorks*, simply import your original high-res anim file, select SCALE, and choose a new screen

size, in fact any size you like. *AWorks* will then begin its magic and automatically re-size the entire anim file accordingly. Your 1000 frame high-res file will be converted to a 1000 frame low-res anim in under ten minutes! But that's just the tip of the proverbial iceberg with this wonder program.

Power

It can also convert anims to and from two, four, eight, 16 and 32 colour, HAM, HAM-E, DCTV and EHB (ExtraHalf Brite) modes. It will easily alter standard screen size anims to new overscan versions. It is also has the ability to re-colour anim files, as well as cut and paste frames.

It will flip anims (or selected frames), combine anims with other anims and/or individual images, and replace frames with other images or even whole

animations. It has no problems converting NTSC anims to PAL formats and vice-versa, but here comes the icing on the animation cake.

AWorks allows you to synchronise sound with specific anim frames. Yes, you can actually select any frame number and instruct the software to link a sound effect to it. *Deluxe Paint* can't do that!

AdPro Required

Let me come down from anim-cloud nine for a moment and mention that all that glitters is not gold - in this case, all that flickers is not because of *AWorks*. The software needs a helper to perform its amazing tricks. *AWorks* has been designed to operate in tandem with ASDG's image processing package *Art Department Professional*. It uses *ADPro*'s features and tucks many new additions on for good measure.

Referring back to the high-res to low-res anim conversion, *AWorks* is the controller of the operation, but it uses *ADPro*'s Scaling function to make the changes. Which basically means that both programs have to be running for many of *AWorks*' options to work.

Let me give you another example. As one of *AWorks* basic functions, it is capable of taking a list of images (24-bit or less) and creating an animation out of them. But 24-bit images (RGB) must be converted first to an Amiga

The *Anim Workshop* screen interface - similar in design to *AdPro*



viewable format. This is where *ADPro* enters the picture (excuse the pun).

With *ADPro* running, *AWorks* will automatically load the RGB files and convert them and then attempt to create an animation (assuming all images are the same size). *Aworks* can actually start *ADPro* for you if it is not already running, then fully configure it for your personal preferences.

When *ADPro* is first loaded *AWorks* gives you the opportunity to tell *ADPro* how much chip and fast RAM it is allowed to use. It is also possible to select which *ADPro* Loader/Saver options you want to interact with. Incidentally, the *AWorks* screen interface has been designed to closely match the style of the *ADPro* requesters.



The Anim Workshop *TOOLS* requester

Hands on Example

Let me take you through an example of how *AWorks* operates. For this exercise I will describe how to add sound to an anim file. After *AWorks* is up and running you select the LOAD ANIM

button to import the anim file. You are then shown a listing of the anim file's main attributes - name, file size, frame count, dimensions, resolution and display mode.

The anim can be instantly viewed with the PLAY button. You can even freeze on an individual frame by clicking the left mouse button, or step through it one frame at a time. When an animation is playing *AWorks* offers many additional options, all of which are

accessed via the Animation Control Panel.

This panel, activated by the return key, sits in front of the running animation. It contains a frame counter and a set of buttons for animation speed and direction control. Included within the

COMPUTA MAGIC NEW PRODUCTS

3.5 FLOPPY DISK DRIVES	\$139.00
BRILLIANCE	\$CALL
ANIM WORKSHOP	\$99.00
VIDI 12 UPGRADES 1.7 - 2.03	\$CALL
GOLDEN IMAGE OCR U/G 06/07	\$CALL
G/IMAGE PCMCIA 06/07/93	\$249.00
TAKE 2 ANIMATION PACKAGE	\$104.95
MEGA MIX AUDIO DIGITISER	\$104.95
VIDI 12 AMIGA	\$BEST
INFRA RED MOUSE 06/07/93	\$74.95
BRUSH PEN 250DPI 06/07/93	\$CALL
G.I. 2-8 MB RAM 06/07/93	\$CALL
SPECIALS	
AMIGA A4000	TOO
AMIGA A1200 HD40	LOW
AMIGA A2000HD	TO
AMIGA A600	PRINT

(JULY RELEASES CAN BE PRE ORDERED)

44 PASCOE VALE RD
MOONEE PONDS
VICTORIA
326 0133

E&OE

COMPREPAIR WILL BE AT WORLD OF COMMODORE

REPRESENTING
ROMBO
VIDI 12, MEGA MIX, TAKE 2.
GOLDEN IMAGE
HAND SCANNER, OPTICAL MOUSE,
CORDLESS MOUSE, PCMCIA,
250 DPI BRUSH MOUSE,
AND MUCH MORE.
PRODUCTS WILL BE AVAILABLE
TO THE PUBLIC AT ONCE ONLY
SHOW PRICES.

OTHER NEW PRODUCTS TO BE
RELEASED AT THE SHOW
DEALER ENQUIRIES
WELCOMED
FAX (03) 370 8352

The Australian
COMMODORE
& AMIGA
Review

Make sure of getting
 your copy

Subscribe now!

Please enrol me for a issue
 subscription to *The Australian Commodore & Amiga Review*,
 commencing with the issue.

I enclose a cheque/
 money order for \$.....

Please charge my Bankcard, Visa
 Mastercard:

Card number:

.....

Expiry date:

Name:

Address:

Postcode:

Please tick applicable:

First Subscription

Renewal

To: **Saturday Magazine P/L**
21 Darley Road,
Randwick NSW 2031
Phone: 02 398 5111
Fax: 02 398 5322

Rates within Australia:

6 issues \$20.00 (inc. postage)

12 issues \$38.00 (inc. postage)

New Zealand: (inc. airmail postage)
 6 issues Aus \$34.00
 12 issues Aus \$68.00



Set AdPro's memory using the AWorks option

control panel is one feature I have desperately wanted for years - a frame rate indicator, but with a much-needed addition.

As well as showing you what speed the anim file should be running at - for example 25 frames per second (fps) - it also shows you how fast the anim is ACTUALLY running. Since some animations have large changes in the images from frame to frame, you may not always get an anim to play back at the original frame rate you set. At least you can easily find out how fast it IS running by looking at the frame rate indicator. I tested an anim file that was created at 30fps in *Deluxe Paint*, but AWorks told me that it was only running at 22fps.

There's more! (*Don't tell me - a free set of steak knives - Ed*) You can even set timings for individual anim frames. If you want frame number 56 to pause for a few seconds just use the inbuilt TAG option and tell it how long to hold that frame when replaying the anim file.

With this kind of timing option you can insert pauses into any animation and have totally customised playback timing throughout. Using the VIEW POSITION option it is even possible to move an animation around the screen while it's running. This is useful if you have an animation that is larger than the Amiga's viewable screen area or the view window size set within AWork's Conversion Options requester. But I digress, back to the sound side of things.

Once an anim is loaded, you select the FRM (Frame) INFO button and you are presented with the Current Frame Information panel. At the top of this panel is displayed the current frame's number as well as the total number of frames in the animation. Next, you see the current frame's delta size and the average delta size for all of the animation's frames.

Delta size is the amount of change (in bytes) between the current frame and the next frame in the sequence. The larger the number, the slower the transition between this frame and the next frame will be. Naturally, the faster your Amiga, the faster your frames will be displayed.

Let there be Sound

Located on the bottom section of the FRM INFO panel are the sound controls. There are four basic sound settings. First is the CHANNEL setting. There are four sound channels for sounds, two for each stereo channel. There can be four different sounds started at any frame.

The only sound file format currently supported by AWorks is IFF 8SVX. Sound can be played in five modes - CHANNEL SILENT - no sound, FOREGROUND INT - plays the sound one time every time its frame is displayed, FOREGROUND PRI - the same except any sound currently playing on the same channel will not be stopped and the new

Sydney 652 2712
International 612 652 2712

Free Call 008 808 503



Amadeus Computers

"The Mail Order Specialists"

Suppliers of Quality Hardware and Software.

Ask for a
copy of our
comprehensive
Amiga
catalogue.

Bible Reading/Search Programs from \$150.00

Hard disk or floppy versions. Extensive search functions, speech and built-in word processor with margin notes. Multiple windows allows you to compare verses from different parts of the Bible or different translations. Call for details.

New VIDI framegrabbers capture photo-realistic video images in an instant!

Rombo are now shipping new models of the popular VIDI frame grabber which can capture 4096 or 16.7 million colour images in real time. Full AGA support. Call for more info.

X-CAD 2000/3000

3D packages recommended for the advanced enthusiast and professional CAD users. X-CAD 2000 has 2500 commands and modifiers and X-CAD 3000 over 6000. More features than you can list. Rave reviews overseas. Call for details.

X-CAD 2000
X-CAD 3000

\$349.00
\$899.00

- 30 Day money back guarantee and 12 month warranty.
- Free delivery to anywhere in Australia. If not delivered within 10 days, we will give you a 10% refund!

Super Fast Modems

14,400 fax/data from \$599.00.
Data only from \$549.00.

Ultra fast and reliable complete with GP Fax and GP Term software.

2,400 BPS Modems from
\$259.00.

Phasar 4 - \$129.00

Acclaimed accountancy package for the non-accountants. Personal financial manager and organizer. Displays your tax liability, prepares tax forms and returns. File addresses, appointments on your calander/diary.

Hyper Cache Professional - \$85.00

Accelerate your Hard disk access times to unbelievable speeds with this power packed program. Essential for Hard disk owners wanting to improve their personal productivity.

X-Copy Professional \$99.00

It's back! The number one Amiga copying program is now readily available

Final Copy II

Release 2 now available! UK or US Dictionary, all compugraphic fonts now supported. Landscape printing, AGA fully supported.

Education Software

We have an extensive range of Australian and overseas software for home or school use. School catalogue and site licenses available.

Type Smith \$199.00

Professional Amiga Font Generator and Editor. Ideal for the DTP user or anyone wanting to create fonts to meet their needs.

Citizen and Canon Printers

Dot Matrix, Bubble Jet and Laser. Colour or black & white. Amiga drivers included. Call for prices.

Amiga 1200
PCMCIA RAM
expansions from
\$249.00.
Clock Module
\$59.00.

Distant Suns
V 4.2
Latest version.
Virtual Planetarium
in your home. Rec.
by Arthur C. Clarke.
\$119.00

Imagine 2.0 \$289.00

*NEW Low Price
for JUNE Only!*

Amiga Games

Latest games from all Distributors. Wing Commander, Lemmings 2, Street Fighter II, Reach for the Skies, B-17 etc. AGA versions for some.

Real 3D v2.0 \$799.00

The ultimate in 3D Modelling and Animation. AGA Aware!

Call for advice on your complete Amiga system solution.
Post orders to: 34 Tecoma Dve, Glenorie NSW 2157. Or Fax: 02 652 1515

See us at: The Home Computer Show
June 4-6. The Sydney Computer Market - June 27th and Th
World of Commodore - from July 2-4

Australian Commodore & Amiga back issues

APRIL 1992 Vol 9 No 4

Upgrading to Workbench 2.0 • Technosound Turbo • Turboprint Professional • CanDo • AMOS - How to write a game • Computer Care - Part III • C64/128 - User groups, game conversions, which printer
Games - Strike Fleet, Final Blow, Knightmare, Micropose Formula One, Grand Prix, Vroom!, Lotus Turbo Esprit, Champions, Moonstone.

MAY 1992 Vol 9 No 5

DPaint IV • Music basics • SuperJam - easy MIDI • Desktop Video Book • AMOS - Writing a game II • CanDo - Workbench Control Panel • C64/128 - PD update, Tips and tricks
Games - Fighter Command, Action Pack, Sliders, Videokid, Bane of the Cosmic Forge, Black Crypt, Gateway to the Savage Frontier.

JUNE 1992 Vol 9 No 6

Amiga 600 • AX RAM Four - A500 memory expansion • A-570 CD ROM drive • Answer - Amiga Phone Program • DPaint - Stencils • Amiga for Beginners book • CanDo - System information Window • Computer Care - Part IV
C64/128 - Hard Drives, GeoTerm, Joysticks
Games - Castles, Special Forces, Charge of the Light Brigade, Space Crusade, Home Alone, 4D Sports Driving.

JULY 1992 Vol 9 No 7

AMOS for the beginner • Phoenix Colour Digitiser • Quick and easy video titling • What the manual doesn't tell you • AMOS - Menus • CanDo - text editor • Super Workbench III PD • C64/128 - Gateway
Games - Titus the Fox, Harlequin, Mega-Pack 2, Baron Baldric, Legend, SimAnt

NOV 1992 Vol 9 No 11

Amiga DOS 2.1 and 3.0 • Artificial Landscape • DPaint - the right moves • CanDo - designing databases • AMOS - AMOS Pro new features • C64/128 - GeoCanvas, floppy drives
Games - Great Napoleonic Battles, California Games II, AGE, Epic, Treasures of the Savage Frontier, Tennis Cup II.

DEC 1992 Vol 9 No 12

Opal Vision • Blizzard Turbo Board Memory • Video Director • BBSs • AMOS Professional • CanDo - database reports • C64/128 - C64 to PC, GeoWrite
Games - Myth, Dojo Dan, Liverpool, Crazy Cars II, Hook, Crime City

JANUARY 1993 Vol 10 No 1

CanDo V2.0 • Mini Office • Hard Disk Standards
Removable mass storage • Amiga Conference • Display System
Deluxe Paint Masterpiece • Pagestream Hotlinks 1.1 • AMOS - AMAL • CanDo - AREXX
C64/128 - Printer Problems, GeoVISION, Modems
Games - Zool, Toddlers, Jaguar XJ220, Aquatic Games, PD Games, Robosport

MARCH 1993 Vol 10 No 3

Dirwork and Diskmaster • Crystal Sound • Amiback Vs Quarter Back • Protracker • DTP - Technique & design • CanDo - A word Scramble game • Opal - digital image composition • C64 - Geos Utilities
Games - Hagar the Horrible, Howzat!, Nigel Mansell's World Championship, Nick Faldo's Championship Golf, Paperboy 2, Tearaway Thomas

APRIL 1993 Vol 10 No 4

Word Processing Comparison • How to Connect Two Computers
Getting Started with Scripting - Part II • Virtual Reality Today
Multi Pilot XLINE • CanDo - Pattern Matching Game • DTP
Hot PD • Amos Column - Dual Play fields • Deluxe Paint Tutorial
Hi-res • Andy's Attic - Workbench 2 • C64 - PD Update
Games - Curse of Enchantment, Wing Commander, Shadow of the Beast III, A-Train, Pinball Dreams, Catch 'Em

MAY 1993 Vol 10 No 5

Professional Page 4.0 • World of Commodore Show - New York report • My Amiga 1200 - user report • Amiga 1200 Games Compatibility Guide • Morphing for Peanuts • Amiga Expo 1993 - report from Melbourne • Education Column • You Can CanDo - Make your own Directory Utility • Andy's Attic - Exploring WB2 • Deluxe Paint Tutorial - Easy Abstracts with Virtual Colours • C64 Column • Hot PD - Latest in almost free software
Games - Lemmings 2, Historyline 1914-1918, Sword of Honour, Best of the Best Championship Karate, Lethal Weapon, Road Rash, Hook - Full Solution

\$3 each including postage. Send cheque or phone/fax credit card number. Saturday Magazine, 21 Darley Rd, Randwick NSW 2031. Ph (02) 398 5111 Fax (02) 398 5322.

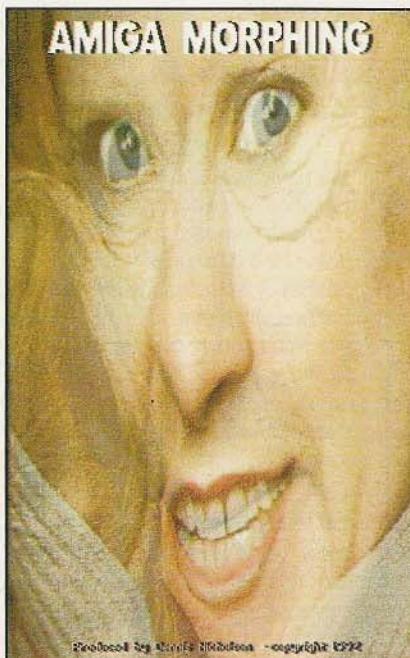


AnimAFTER: The anim reduced in size to make 64 mini-anim on screen

sound will not play until the channel is clear, BACKGROUND INT and BACKGROUND PI - are the same as the Foreground options except that a sound is started at a specific frame and plays over and over.

The final buttons in the Frame Information Panel are the SET ALL, SET TAGGED and TEST options. All you have to do is select what frame to trigger your favourite sound effect. *AWorks*

AnimBEFORE: An original anim frame



saves all the relevant information and writes the details into the anim file.

More Features

AWorks has many other talents. It allows you to GRAB any current Amiga screen image and instantly insert into an anim file, or analyse your anim with the HISTOGRAM tool. The software is also fully ARexx-compatible and comes supplied with several example scripts.

The manual is only 40 pages, but don't let that worry you. It describes all the program's features concisely, and with clear graphics. Oh yes, I almost forgot. Press HELP and *AWork*'s screen interface changes to another colour, so you can pick a colour of your choice to suit your mood.

The package is supplied on a single disk, and comes with the Commodore hard drive installation utility. One more amazing thing about *AWorks* is its price.

I have seen many Amiga graphics-related programs come and go over the years, but I think I can safely say, that like *Deluxe Paint*, *Anim Workshop* is one package that every animator should own. *AWorks* is A1!

Anim Workshop is created by Brian Wagner for Axiom Software. RRP \$A99.95. Review copy supplied by Computa Magic, 44 Pascoe Vale Rd, Moonee Ponds 3039, (03) 326 0133. □

Dpaint Tutorial

A Roll of the Die

by Graham Bowden

Wouldn't it be nice to be able to use *Deluxe Paint*'s animation powers to animate in 3D. Two dimensional paint programs may have apparently meaty brushes when viewed in their flat perspective plane, but when rotated 90 degrees they disappear.

That's an unfortunate drawback inherent in any two dimensional product. On the other hand it's perhaps propitious that *Deluxe Paint* isn't a 3D package because such packages are notoriously slow at rendering a single screen, let alone an animation sequence.

However, I wanted to animate a cube in three dimensions and I wanted it to be more realistic than the cube animation exercise in the *DPaint* manual. Figure 1 shows what results when a 2D representation of a cube is rotated on its "Y" axis by 360 degrees over 12 frames. When the cube gets edge on it disappears. So much for attempt one at animating a cube.

Attempt two in Figure 2 employed *PhotonPaint* 2 to create ten separate brushes, which were then laid down one

frame at a time using *Deluxe Paint* 4's LightTable to align the brushes directly over each other. A brush representing one face of the cube was imported into *PhotonPaint*, where Alt-3 was used to wrap the brush onto three sides of a cube.

The aspect of the cube can be adjusted with the mouse before rendering to produce, individually, the ten rotating dice brushes. These ten brushes were saved on one page as a picture, and when *DPaint* was started that picture was imported onto the spare page. Animation frame number was set to 10 frames and the LightTable was activated to allow accurate placement of the brushes frame by frame.

The LightTable, which appeared with the release of *Deluxe Paint* 4, is an almost essential tool for the serious animator. Known in some circles as onion skinning, it allows the viewing of up to four frames of animation at once.

There are several ways to activate the LightTable. Pressing Alt-A will conjure up the Animation control panel from

which a click on the light bulb icon will activate it.

Another method, the quickest, is to hit "l" (that's lower case L) on the keyboard or one could always resort to the LightTable menu under the Effects menu. Once activated, selecting "P" from the control panel or Previous from the menu enables viewing the current frame and the previous frame. "2" shows the current plus the previous two frames and "N" displays the Next frame.

All three parameters can be selected simultaneously, together and at the same time to allow viewing of four animation frames at once. To avoid confusion it's usually preferable to leave the brightness setting in the Effects/LightTable menu at Dim. This ensures that any previous frames, although visible, are darker than the current frame. If you must, Alt-l will brighten the previous images. The "Next" frame cannot be dimmed. The "S" on the animation control panel will toggle the spare page view off and on.

Once set up with animation frames, LightTable set to "P" and spare page brushes, the "real 3D" cube animation began. From the spare page the first brush was picked up before returning to animation frame one and stamping it down. Moving to frame two with the LightTable active provided a dim view of the first frame. Stepping back to the spare page allowed the second cube to be grabbed as a brush before returning to frame two.

Figure 1

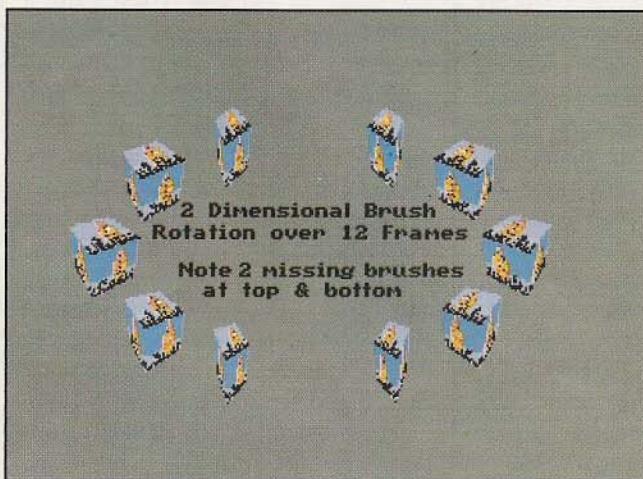


Figure 2



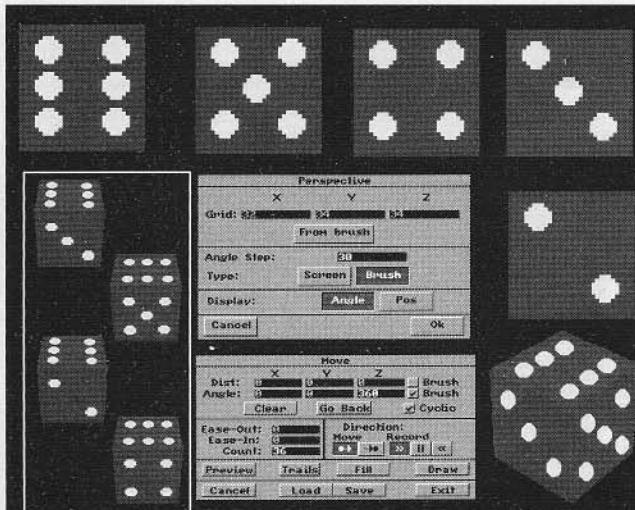


Figure 3

This second brush was aligned over the previous frame and stamped down. This process was repeated over the ten frames with each new brush carefully placed over the previous frame position. Now, while this method was all very convenient, valuable time was lost swapping from program to program, not to mention the time taken to render each of the separate brushes in *PhotonPaint*.

Clearly there was a need to find a way to draw and animate a cube using *Deluxe Paint* alone. 3D or not 3D, that was the question. Herein, frank and earnest artists, is the answer.

As the brush is to appear 3D, and as *DPaint*'s perspective mode is specifically designed to manipulate brushes in this dimension, the answer obviously lies in perspective animation. Using the method expounded below it's a simple matter to ensure the angle of the dangle equals the swing of the thing so a rotating cube really looks like a rotating cube.

For our exercise we'll animate a dice. Well, a die really, dice is the plural and, to quote Elmer Fudd, once one's wended we can wapidly wender sevewal fwom it. And so we will in a future article.

For now, however, five die faces need to be drawn, as that's all that will be needed for this lesson. The sixth side will never come into view. These five sides are stored on the animation Scratch - read Spare - page and 36 frames will need to be created for the animation.

Pick the "six" brush up for the dice (die) top and enter Perspective mode. Call up the Perspective requester and set "Angle Step:" to 30 degrees and "Type:" to "Brush" (see the Perspective Requester in Figure 3) and position the brush directly over perspective centre. Two taps of <Shift>-7 (numerics keypad remember) will tilt the brush back to -60 degrees.

Now stamp it down over Perspective centre to locate it for the Move requester which will be the next feature used. Call up the Move requester and set it up as shown in Figure 3, click "DRAW" and the dice top will be rendered as a 36 frame animation. Playing the animation back reveals a rotating dice top which only needs sides to produce a realistic rendition of what we're after. Now, we need to get just a little technical.

The animation frame count was not set to 36 simply because it seemed like a good idea at the time. 36 was selected so that the dice would rotate 10 degrees between frames. 360 divided by 36 equals 10. This makes the maths simple. It means that every nine frames the top will have rotated 90 degrees, resulting in either the "X" or "Y" axis being aligned horizontally across the screen at these nine frame intervals.

That makes for easier side placement, because the four sides will have a "Y" axis angle of zero degrees every nine frames. 36 divided by nine equals four, there are only four vertical sides, so

they will have an easily defined starting point every 90 degrees, as demonstrated in the boxed set of dice in Figure 3.

In Figure 4 we'll play with a few more angles. Frame one of the animation has the dice top situated as shown in the top left of Figure 4 and directly over perspective centre. After grabbing the "five" side as the next brush, step back into Perspective mode and call up the requester to check that "Angle Step:" is still 30 and "Type:" remains selected to "Brush".

Reset them if required.

When you're sure everything's correct, place the brush over perspective centre (which also happens to be over the dice top) and tap <Shift>-8 to tilt it 30 degrees forward. This, combined with the -60 degree angle of the dice top, produces the required angle of 90 between the top and side. There's still a small impediment to locating this side however.

Mouse movements move the brush along the "X" - horizontal - and "Y" - vertical - axes but we've altered the perspective of those axes. The "X" axis has now been rotated 30 degrees forward which results in a tilted "Y" axis. Any downward movement of the brush now will result in shrinking dimensions while upward movement will have the brush expanding as it moves outward along the perspective altered "Y" axis.

The problem, if you're able to follow, is that the brush has to be moved

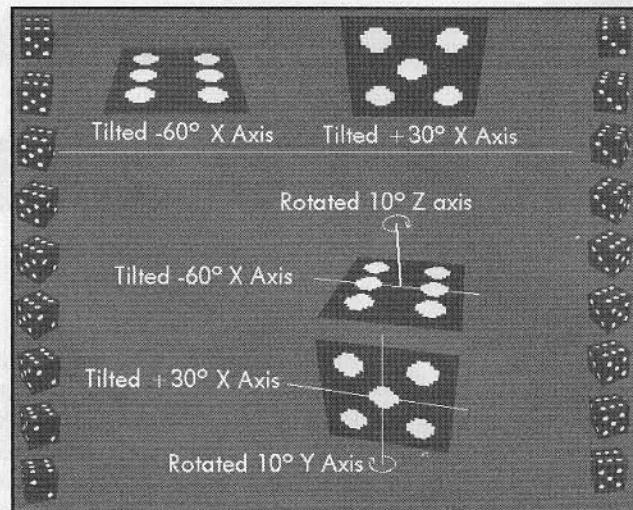


Figure 4

**DEJA VU SOFTWARE
& NOW
CLR LICENCEWARE
QUALITY SOFTWARE AT A
PRICE ALL CAN AFFORD**

TITLES INCLUDE:

EDUCATIONAL

CLE001	T.C. DINOSAURS (2 DISK)
CLE003	T.C. SOLAR SYSTEM (3 DISK)
CLE011	LET'S LEARN
CLE016	KINGS & QUEENS
DV091	FUN TO LEARN
DV122	TELL THE TIME

UTILITIES

CLU003	TYPING TUTOR
CLU008	WORD FINDER PLUS
CLU010	POWER ACCOUNTS
DV077	POWERBASE
DV098	POWERTEXT
DV115	ROOTS

GAMES

CLG008	DRAGON TILES
CLG012	BULLDOZER BOB
CLG014	SONIC SMARTIEHEAD
DV127	THE VIKING SAGA
DV128	TOWER HILL
AUS003	LOST SOUL

1 DISK PROG	\$14 RRP
2 DISK PROG	\$15
3 DISK PROG	\$16

Deja Vu and CLR titles are available from:

Don Quixote, Toowoomba Qld, Ph (076) 331 561
Korella Trading, Belmont NSW, Ph (049) 458 455
MVB Computers, Croydon Vic, Ph (03) 725 6255
Amiga PD Centre, St Agnes SA, Ph (08) 396 2163
Amadeus Computers, Glenorie NSW, Ph (008) 808 503

Phoenix, Keswick SA, Ph (08) 293 8752
Squire Computers, Eltham Vic, Ph (03) 431 2747
Code One Computers, Wentworth Falls NSW, Ph (047) 416 054
PRC Australia, Bendigo (054) 416 054
Bright Electronics, Auckland NZ, (09) 524 9543

**WRITE OR PHONE NOW FOR
YOUR FREE CATALOGUE**

ALLEN
COMPUTER SUPPLIES

Call for the Dealer
nearest you.

where you *will* get more for your dollar!

Call (03) 725 3379

Fax (03) 723 1780

432 Dorset Road,
Croydon Vic. 3136

Latest 3 Disk PD
Catalogue
\$6.00



down the screen from directly over perspective centre (and the dice top) so as to align the top edge of the side with the lower edge of the top. If you have *DPaint* running as you read this it becomes painfully obvious that the lengths of these two sides are no longer equal. Fortunately the good designers of *Deluxe Paint* have allowed for "Z" axis movement.

Naturally everyone knows that "Z" axis movement is movement into or out of the screen and is accomplished in Perspective mode by tapping the semi-colon ";" for motion toward the viewer (out of the screen) or the apostrophe "' " to push the brush back into the screen. In this instance the brush needs to be enlarged so a combination of mouse movements and ";" key taps will quickly scale and align the edges and the brush can be stamped down.

Y-Rotation

The next step is rotating the side face on its "Y" axis as we progress through the animation frames. As Figure 4 shows, while the dice top rotated on its "Z" axis, the side, because it is at 90 degrees to the top, rotates on its "Y" axis but still, with 360 degrees rotation in 36 frames, by 10 degrees per frame.

To accomplish this, call up the Perspective requester again and alter the "Angle Step:" to read 10 degrees. Now step to frame two of the animation, rotate the side face clockwise 10 degrees by tapping <Shift>-4, adjust the brush size using the ";" and "' " keys if required and stamp the brush down. Repeating this action through to frame nine will have half of the steps for this one side completed.

So far this face has been animated from zero to 90 degrees clockwise. That is from the central position - zero degrees - through to the left position - 90 degrees. We've yet to complete the animation frames from the right - 90 degrees - to central position but take heart, if you've kept up so far the rest is easy.

Press the numerics keypad "6" to reset the "Y" axis to zero and hit keyboard <Shift>-1 to step back to frame one of the animation. This next series

of frames requires anti-clockwise brush rotation and backward steps through the animation frames. Use whatever means you're comfortable with to step back one frame then press <Shift>-5 to rotate the brush 10 degrees anti-clockwise.

Adjust the brush in or out with the ";" and "' " keys as before and stamp it down. Continue stepping back through the frames and adjusting the angle and size of the brush until you've completed the sequence. The dice down the left and right sides of Figure 4 should give a rough idea of this sequence of frames.

With this first side completed it's now a matter of picking up the brushes for the remaining three faces and using the same procedure to lay them down. Once all four sides are completed a little cleaning up and adjusting may be required around the edges and abutting sides, then a quick tap of the keyboard "4" key will reveal a reasonably lifelike rotating die.

Perhaps a little extra work with shadings may even produce lifelike shadows as the cube rotates. Those who really enjoy experimenting may like to try to use *DPaint* to animate the sides via the Move requester. I wish you luck.

Think of this ... adjusting the brushes in Perspective mode to set up the angles and sizes to match the top, then setting up the Move requester to rotate the sides a given angle over a given number of frames, is not the complete answer. Asking the Move requester to rotate a brush 90 degrees on its "Y" axis over nine frames will NOT produce the effect desired.

The sides, you see, do not simply rotate on their "Y" axes. They move along the circumference of a circle which has a diameter equal to the width of the brush if the brush is square. Without becoming too long-winded, let me say it is possible to automatically animate the sides.

The problem requires a couple of simple math equations to be solved but even then the brush needs to be moved along the "X" and "Z" axes as it rotates.

Contact me via this magazine if you'd like to know more. Next time we'll manipulate our dice as an AnimBrush for some special effects. □

SOFTWARE

Scala MM200 AGA	\$399
Final Copy II	\$169
Cinemorph	\$249
Pro Page 3	SELLOUT
Pro Page 4	\$249
Pro Draw #	\$199
Pro Calc	\$229
Wordworth 2	\$269
Imagine 2 & 3	CALL
Vista Pro V3	SPECIAL
Bars and Pipes (New Version)	\$499
ImageFX	\$469
Real 3D V2	\$899
DPaint AGA	CALL

June Special

Impact Vision 24
\$2599

Save
\$900



Hi Res Cards

Retina 24 bit Card +
V-LAB Framegrabber

Retina
24-bit Card
From \$899

Retina 24-bit Colour Card

offers resolutions up to 2400 x 1200, and interfaces to graphics libraries allowing most software to be run in much higher resolutions. Full 24-bit colour is available up to a resolution of 1152 x 862.

V-Lab is a 24-bit framegrabber designed to compliment the Retina or Harlequin boards. Both cards have full AdPro and Imagemaster drivers, as well as extensive developer libraries and docs.

Phone or call in for a Demonstration.



EX-DEMO

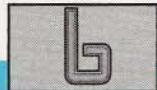
Amiga 500	\$299
GVP Impact 500 series II From A590 20Mb HD + 2Mb RAM	\$675
IBM Emulators	\$499
68020 & 68030 Accelerators	Call
All with warranty. Call for availability	Call



sigmacom
Ph: (02) 524 9846

- Mobile: (018) 25 7471
- Facsimile: (02) 524 9839

Phone Orders Welcome



A1230 40Mhz 68030 for A1200	From	\$899
Impact 500 with 52Mb Quantum	Call	
G-Force 25 Mhz with 68882 1Mb RAM	\$899	
G-Force 40MHz with 68882 4Mb RAM	\$1599	
G-Force 68040 for A2000 33 MHz	\$2599	
G-Force 68040 for A3000	SPECIAL CALL	
INCREDIBLE		
Impact 2000 with 120Mb Quantum	\$899	
Impact 2000 with 170Mb Quantum	\$1099	
Digital Sound Studio - Stereo Digitiser	\$159	



Systems

Amiga 1200 and 4000 Systems available in a wide variety of configurations. Because we are also a fully Authorised Commodore Dealer, we can offer you no nonsense pricing and quality service.

Call for the price you want!

TRADE-IN

We happily trade-in any Amiga equipment
CALL US TODAY



Here are Seven Reasons
to shop at Sigmacom

- FREE delivery in Australia
- FULL after-sales service
- FREE Technical advice
- FREE Hardware installation
- FREE Software installation
- Trade - ins always welcome
- Best Prices ALWAYS!



Visit our showroom at
Suite 17, 20 - 24 Gibbs Street,
Miranda -
right behind Miranda Station.

See Sigmacom at
The Home Computer Show

RAS Showground Sydney 4-6 June 1993

and the
World Of Commodore

Darling Harbour Sydney 2-4 July 1993



AMOS Column

by Wayne Johnson

We have something a little special this month. Not only are the AMOSPro v1.1, AMOS 1.35, Compiler 1.35 updaters available, but as I promised last month, we have a quick interview with Francois Lionet, the guy who put the whole AMOS language together. Thanks all for the feedback and calls during the day. Your suggestions have been helping greatly.

Amiga 1200/4000 Compatibility

Just bought one or considering it? As you know, the AGA Amiga boots up as a default in AGA mode. In this mode it is possible to have a hires pointer (same resolution as the Workbench screen), and up to 256 colours on the Workbench. Now, the rule is this: as long as your mouse pointer is set up as lores and your workbench contains only four colours, AMOS will boot and work normally. However, pressing the left Amiga and A keys will switch you back to the Workbench, and pressing these keys again will return you to AMOS again but the graphics will become distorted.

It may sound stupid but as long as you don't need to go to the Workbench for any reason, AMOS will be happy. If you have a screen blinder in the background, it will remove your pointer and you will need to go to the Workbench and so, AMOS crashes.

You can live with this or get the AMOS 1.35 updaters for AMOS The Creator users or the AMOS Pro v1.1 updaters for Pro users. Also available is the Compiler updaters v1.35.

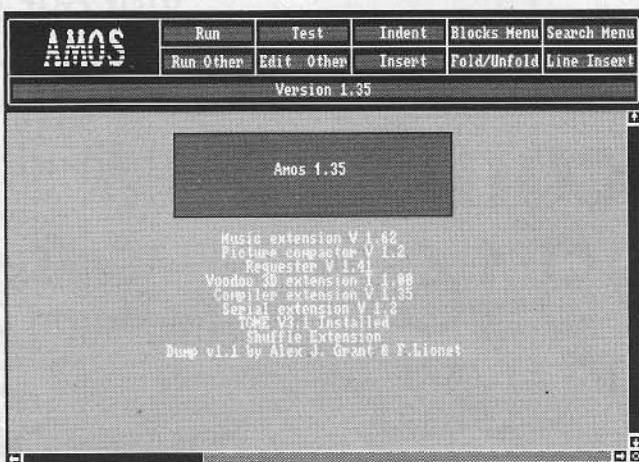
AMOSPro Update

There's quite a major change from AMOSPro v1.0 and v1.1. You find it all be-

low. If anyone needs the update quickly, it is available on Predators BBS (02) 604 6644 or the Amiga File Server (02) 876 8965, otherwise, contact the AMOS Club at PO Box 253, Rydalmere NSW 2116 to order the update. Catalogue disk v1.2 is now finished, fully AGA compatible, and has had a few new things added. Please note that the new Compiler 1.35 updaters is not the official Pro Compiler release. It is simply an AGA Amiga compatible compiler.

AMOSPro PD

The club is opening a new PD section for programs written with AMOSPro. If anyone has written anything in AMOSPro and wants to see it spread around, give me a call on (02)



748 4700 and we will discuss exchanging for some PD.

Features added to AMOS Professional

- AMOSPro now works on AGA machines (1200/4000). You can now launch AMOSPro from the Workbench on an AGA machine, and flip between AMOSPro and the Workbench. AMOSPro does not yet exploit the new resolution modes: we are currently working on it. Version 1.2 is to be released later this year.

- AMOSPro now works with a screen blinder. A screen blinder can work under the Workbench without causing problems with AMOSPro. When AMOSPro is displayed it sends fake mouse movements every five seconds simulating a user input. The file selector has been vastly improved.

- Full Multitasking: the input/output of the file selector is now handled by a separate task. You can safely type in a file name while the directory is being read.

- STORE slider: instead of this button's old effect of displaying random directories, you are now presented with a list of all the stored directory pathnames.

- The Right mouse button now has an effect. This was originally in AMOS and Easy AMOS: click the right mouse button and you'll get the current device list displayed in the file selector. Click again and you'll receive the assign list, click another time and you'll get the stored list of directories, and another time brings you back to the directory you started from.

- Testing speed has been improved.

- The testing process has been rewritten, and is now up to 50% faster (usually 30 to 40% on a 68000 based Amiga).

- You can now configure your own default screen. Getting bored with the orange lores screen? You'd prefer it to be Workbench grey, hires

Solutions Rendered

Solutions Rendered Pty Ltd. ACN 057923645

We give you the complete solution!
Call Mike, Doug or Jeroen on **(02) 477 5353**
or fax us your requirements on **(02) 476 5736**
Mail & Credit Card orders welcome.

9 Miller Avenue, Hornsby NSW 2077

We are a team dedicated to bringing you the best in Amiga desktop video and desktop publishing. We use and support the products we sell.

Hot Hardware

- OpalVision Release 2 - Call for details.
- Exciting add on products for Amiga 1200.
- Epson A4 full colour flatbed scanner - scans in 24 bit colour or 8 bit grey scales. OCR software now available!
- IV-24 - 24 bit graphics board / Genlock /Framegrabber from GVP. ★★ Now at a new lower price ★★
- Retina 24 bit High Resolution display card.

Hot Software

- Final Copy II UK version
- SoftFaces Vol 1-4
- Deluxe Paint IV AGA
- PageStream 2.2 Power Pack - with 47 fonts.
- Art Expressions
- Pro Page 4.0 / Pro Draw
- Vista Pro 3.0
- ProWrite 3.3
- Ami-Back
- Ami-Back Tools
- Alladin 4D
- ImageFX
- Art Department Pro
- Morph Plus
- Scala MM210 AGA
- Directory Opus V4
- PC-Task - now with VGA display modes!
- LinkUP - Transfer data to and from a Sharp Organizer.
- PowerCopy Professional
- Broadcast Titler II SHR
- SAS/C V6 Dev. System
- True Print 24
- Real 3D V2
- Real 3D Classic
- Brilliance - Awesome HAM8 Paint Program
- TypeSmith - Professional Outline font Editor.
- Caligari 24
- Migraph OCR Software
- Bars & Pipes Pro V2 and much more...

DTP Services available

- Laser Printing Service - 300dpi postscript printing. All major Amiga formats supported.
- Full Colour glossy 300dpi printing service A4 or A3 prints of your graphic masterpiece.
- Digitizing and Scanning - Up to A4 full colour or B/W.
- Complete Artwork and Design service - Illustration, company logos, business presentations, catalogues, etc

Multi-Media, Film & Video Services

- Graphic Design - Illustration, logos, business presentations.
- Rendering & Animation - Cel animation and 3D Ray-tracing for film or video. AutoCad users - DXF files rendered in 24 bit colour, HAM8 or grey scale.
- Multi-Media presentations.
- Frame grabbing from VHS, S-VHS or other video source.

★★**NEW**★★ - **KEEP TRACK** - The complete customer contact oriented database with integrated Calender, Diary and To-Do list.

Mike's Message Board

We are now open on Saturdays 9am-1pm- so feel free to drop in and see us sometime. We will also be at the World of Commodore show this year (with lots of goodies on hand) so take my word for it folks, this will be an event not to be missed.

interlaced and overscanned? No problem, just set it up using the new options in the Interpreter_Config.

AMOS program

You can now configure the Amiga-A key combination. Up till now there has been no choice, Amiga-A was the only way to flip between AMOS and the Workbench. Now you can define your very own key combination such as Left Amiga + N like normal Amiga Workbench screens.

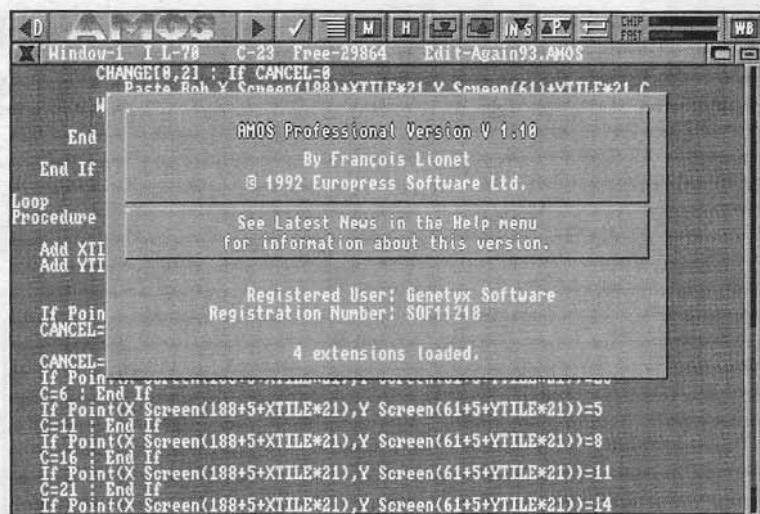
AMOSPro used to open a small screen at the bottom of the Workbench display to do its graphic work. Some users have complained about this (and rightly so). It has now been removed. In fact the entire screen system in amos.library has been totally re-written so that it is much more system-friendly.

- It is now possible to relocate the mouse pointer when in direct mode.
- If you have lost your mouse pointer (it's off the screen or you've hidden it), just press the <HELP> key and the mouse pointer will appear in the top-left corner of the direct mode window.
- Closing the last window now also gives you the option to quit the AMOSPro editor.
- The disk manager now copies and formats high density disks on an Amiga 4000. The debugging monitor does not single step through closed procedures anymore. This allows much faster debugging.

Printer device now sends its requester to AMOSPro and not the Workbench screen as it used to do. You can now use the 3D and Compiler extensions within AMOSPro. This will not allow you to compile the new Pro commands, it is still the only compiler (1.34 upwards is needed). The Pro compiler should be available within the next few weeks.

Bug Report

The equate system now works fine. Machine language procedures used to have difficulty accepting more than one parameter. ERRN now returns the proper error number. - ERR\$ returns the



good error message. Track Loop On / Off now works. On Break Proc works. LPrint does not leave the printer device open: you can now do a LPrint and then a Printer Open.

The testing process does not report an error with the following line: If A\$="" And B\$="" Then ... Mid\$, Left\$, Right\$ as instructions are now corrected. Monitor - Now works in interlaced mode.

Pressing HELP while a program was run used to mess up the system. You cannot evaluate any more the command =FSEL\$() and any special functions. They used to cause funny effects! Marking an array without marking the indexes used to crash.

Used to crash when accessing the program slider of a very small listing. Expression evaluation problems removed.

File Selector - Default name now works. The slider used to be badly positioned with a small number of files.

Editor - A random line number used to be displayed in the Edit / Direct window after an error. Stupid bug this one. Sorry.

Blocks do not include random characters any more. A program which included extension commands that weren't available used to crash. The User menu add and delete options now work fine. Autosave sometimes appeared for no

reason.

You can now record a macro over an existing one without crashing. You can now remove a keyboard shortcut. Shift+Space does not produce a line of garbage any more. The Insert/Overwrite button now indicates the current state.

Direct Mode - BStart and BLength used to crash History buffer system corrected. EDIT now works. RUN now works.

CONTROL-C does not crash any more. Dialog boxes do not grab all the keyboard inputs anymore.

Object Editor: when grabbing a bank from the current program, the hotspots are not lost any more. The default font for any AMOS screen is now Topaz 8, whatever the default Workbench font is. EDialog reports the correct number.

Corrections to the User Guide:

- Page 08.01.01 - The second line of the program listing should read:

Flash 1,"(FFF,1) (000,147)
(A5F,2)"Page 09.01.09

- Line five of the second listing should read:

A\$=A\$+"RU 0,%1100, wait for either a mouse click or a key press"Page 09.02.06 - The JmP command is in fact JumP.

Interview

Francois Lionet

Francois kindly agreed to interrupt his BUSY schedule and answer some programmers' questions for us. AMOSPro is going to become a bigger and bigger product. There's a heck of a lot on the way over the next two years, and I asked Francois the most common questions in AMOS programmers' minds:

WJ: Will AMOS be continuing on the Amiga for the next five years or will you move to the PC?

FL: BOTH! I will, of course, stay on the Amiga and make AMOS evolve in a proper way: AGA, better Intuition support ... Well, I will finish the AMOSPro Compiler, and then my employee will take care of AMOS.

So I tell you: one person is going to work full time on AMOS, just beside me! So be ready to have a lot of new products for AMOSPro for the next months: interface builder, Intuition extension ... I will personally move to the PC as soon as the Pro compiler is over. A friend of mine has started to work on the PC since January. We expect the PC product to be finished for September '94.

This product will be much more modern, object orientated etc ... So ideally, I would like to come back to the Amiga and port the main features of the PC product back into AMOS.

WJ: Why wasn't Intuition put into AMOS from the beginning?

FL: Intuition was not put into AMOS from the beginning because Intuition V1.3 was just not exciting at all! Ugly interface, (AMOS 1.3 interface was also ugly, I agree!) slow screen handling. At that time, chip poking was the only OFFICIAL, supported by Commodore, way to achieve graphic effects with an Amiga. V2.0 of Intuition was better, but

no screen effect could be achieved with it. It is only with V3.0 that you can consider writing usable games using Intuition.

You must also keep in mind that AMOS was to be a GAME creator at first. It is the user who has decided to make it do other things. I still consider that it is difficult to write serious applications in AMOS. AMOS is the best for multimedia purposes (at least 10 French companies are using it to create multimedia screens in shops), educational software ... and fun!

AMOS is also very good for CDTV development: five titles have been written in AMOS so far.

WJ: What inspired you to go with the Amiga when there's a huge market elsewhere?

FL: The PC market was not that huge at that time: it was office only. It is only now that the PC game market is growing.

WJ: What did you do to get AMOS published?

FL: In fact, before AMOS, was STOS, the ST version. We got it published in France, and only sold 188. Then we went to see Europress Software (Mandarin Software at that time). Mandarin asked for many modifications to the product, and that was it!

WJ: When did you first start programming? What age? What was the first program you ever wrote?

FL: I started programming at 17, when I began my vet study. My first computer was a 6502 board, very exciting (in 1981) with 4k, a build-in keyboard and a cassette (Superboard II from OHIO Scientific). On this computer, I had a lot of fun, I wrote many games: Galaxian, tennis, Defender, using my home-made assembler! Then I had an

Oric (6502), Amstrad CPC 464, CBM 64, PC, Atari and finally Amiga!

WJ: Did the fact that AmigaBASIC was so appalling influence your decision to write AMOS?

FL: Of course, AmigaBASIC was one of the reasons why I decided to write AMOS. The other reason was the potential of the machine, which was amazing!

WJ: Are you married? Do you have brothers and sisters? Are any of your relatives interested in computers?

FL: I have been married for three years now, my wife's name is Carine. We have a baby boy named Christopher, who was born on May 10th 1992. I have a dog called Daisy, who is very keen on helping me writing this software. I have two brothers, one is a dentist, the other is a cardiologist in Tahiti!

My wife does not understand anything in computers! She cannot even find a name in the electronic phone-book (minitel, that we have in France), and I can tell you, that is simple.

WJ: What programs have you written in the past other than AMOS and STOS?

FL: I have written many programs in the past: many games for the Oric, that you don't know, many games for the CBM64 that were total flops. You might know these ones: I have done the PC and CBM64 versions of *Captain Blood*.

WJ: How many lines of assembly code and man hours was involved in creating AMOS?

FL: AMOS is about 100,000 lines of assembly, and took 13 months to program. I have not counted the manhours, but say it might be around 3000 or so.

WJ: What's planned for the future? Will you continue to write languages or will you end up doing something completely different?

FL: Well the future is: AMOSPro compiler, then PC product, then ... no one knows. May be back to the Amiga, or CD roms or retirement!

Back to normal next month. Who wants a to write a tile system without owning TOME? I'll show you how a month from now. □



We will be on Stand 32
at the
world of commodore
- July 2-4 Sydney

DON'T PANIC CALL ROB NOW

AMI-TECH

For the latest in Amiga Technology

★ June Special 10 PD Disks free
with **EVERY** computer purchase

VOIDAX II \$645

14 400bps VoiceMail, Data & Fax m

A500 40Mb Hard Disk
Slimline drive fits internally and lets
keep your Internal Floppy drive.

AMIGA

CSR Exclusive distributor

Derrin

Impact 500 with 52Mb Quantum

Impact 500 with 120 Mb Quantum

Ex Demo Units

PC286 16 Emulator to suit

A600 Hard Drives From

Impact 2000 Card only

Impact 2000 Hard Card with 52Mb Quantum

Impact 2000 Hard Card with 120Mb Quantum

Impact 2000 Hard Card with other drives

RAM to suit Impact 2000 cards 2Mb

GVP G-Force 030 Accelerator 25 Mhz 1Mb

GVP G-Force 030 Accelerator 40MHz 4Mb

GVP G-Force 030 Accelerator 50MHz 4Mb

\$899 GVP 68040 for A2000/A3000 33 MHz

\$1199 GVP GLock Genlock

Call GVP A530 turbodrives, for trade-ups

\$375 Digital Sound Studio - Stereo Digitiser

\$300 GVP A500 68030 Accelerator 40Mhz

\$345 ADDISON & WESLEY Manuals

\$795 Hot Software. All Books in Stock

\$999 Real 3D Version 2 • Vidi 12

Call AdPro V2.2 • Bars n' Pipes V2 • Broadcast Titler II

\$170 • Image Master • Imagine • Brilliance

• Complete PD library in stock

Stereo Speakers for Multisync monitors \$59 & \$99

These units suit A590 upgrades and most
SCSI controllers. External cases available.
Call for other sizes.

52 Mb Quantum \$475
120 Mb Quantum \$695
240 Mb Quantum \$1075

Removable Media

Syquest Removable Media
44 Mb drive with 1 cartridge \$745
88 Mb drive with 1 cartridge \$1049

External cases and power supply to suit \$245
20Mb Floptical Drive and cartridge Call

NEW 1.44 Mb HD floppy A500/A2000 \$229
Internal 3.5" Drive A2000 \$175
Internal 3.5" Drive A500 \$175
External Roctec Super-Slim 3.5" FD \$165
External 5.25" Drive Call

Retina 24bit Colour Cards From \$899

V-Lab Digitizer 1028 x 2056 onscreen From \$849

DCTV 24bit digitizer/animation \$995

Rocgen Genlock \$369

GVP IV-24 Incredible! \$475

ICD Flicker Free II \$475

Scanners & OCR From \$475

ICD AdRAM for A500. "The most reliable & compatible of this type of expansions."

Uses A501 slot. 1 - 4Mb Chip RAM

Come standard with 1Meg Chip RAM \$245

Price per extra 1Meg \$90

GVP RAM 8 for A2000.2 to 8Meg RAM

2mb fitted. \$395

A600 memory expansion unit \$95

8Mb card for A2000 \$245

A3000 static Column Mode

FAST RAM per Mb \$130

GVP RAM - see GVP section

X RAM units 2Mb Chip +\$445

GVP G - Force - see GVP Section

VXL - 30 68030 accelerator for A500 25Mhz Flash 2Meg \$949

VXL - 30 68030 accelerator for A500 40Mhz Flash 2Meg \$1259

Rocket Launcher 50Mhz speed-up for Commodore 2630

Progressive Peripherals 68040/Accelerator boards From \$995

MegaMidget Racer for A500 68030 Static RAM option Call \$2700

ICD AdSpeed 16Mhz for A500 \$360

Blizzard Boards 14mhz and RAM (Up to 8Mb) \$395

VOIDAX II Voice/Data Fax Modem 14.400 bps \$645

CD ROM Drive with complete Fred Fish set From \$795

A500 512K with mouse, manuals, original Workbench disks. \$345

A510 expansions \$59.80

SRAM 500 \$275

A2091 Hard cards

8 Mb RAM card for A2000 \$295

AT-Once Emulator \$399

A2091 with 52 Mb Quantum \$599

A500 Revision 6A Motherboard Upgrade

Workbench 2.04 ROM \$245

A3000 Workbench 2.x ROM Upgrade \$89

Kickboard (Allows 2 or 3 Kickstart ROMs switchable) \$95

BIGFOOT 200W Power supply for A500 \$49

ALL CUSTOM CHIPS \$175

Ex-Demo 2620, 2630, GVP \$Call

Call

**TRADE UP! Your old 500 or 2000
to an Amiga 1200 or 4000 today.**

Ex-DEMOS/Specs

Bits n' Pieces "High Speed"

We carry hard to get software, so ring and be surprised.
If you don't see it listed here . . . we probably have it,
so CALL for our Best Prices!
Technical and Service enquiries welcome.

Wh

e
sed.
modem
Drives
is you
\$500

Upgrade
030 A4000
to '040
From \$1400

Derringer '030

A2000 - add '030 Accelerator power
with CSA's Single board 68030 Accelerator. modular design allows you to add the items you want as The 030 board runs at 25/33 or 50Mhz. Add an '882 maths and 32-bit SIMM RAM on to the motherboard as you want. me in 1, 2, 4, 8 and 16 Megabyte modules (32 Megabyte future). No daughterboard is required! The Derringer 030 Memory Management Unit (MMU) and can remap Kickstart to 32-bit RAM through special hardware built into the 000 mode is selectable via software or hardware.

ant component design for reliability and performance!

Derringer 608030

B 32-bit RAM -

Derringer with
bit RAM - \$1195

Derringer with
2-bit RAM - \$1395

While Stock Lasts

Derringer '030

with RAM & Coprocessor

\$645

Amiga 1200 or 4000 systems set up to r requirements - 030 or 040Mhz , 120 Mb 00Mb hard drive and 2 - 16 Meg RAM, 60 Multisync or better? **Your choice.**

MIGA 4000

From \$4195

0 Mb Hard Drive - Upgrade available. RAM expandable to 5Meg on board. 25Mhz 030/ 040 - Chip Upgradable to 060

MIGA 1200

0 Mb Hard Drive - Upgrades available to 120Mb

A4000 4091 SCSI II Card

\$599

A1200/600 Hard Drive upgrade

\$350

A1200 Memory upgrade

From \$279

A600 Memory upgrade

\$129

Retina 24bit Colour cards

From \$799

CDROM Drives.

Comes with Fish 1-760 External \$895 Internal \$795

VOIDAX II 14 400bps

Voice, Data & Fax modem

\$645

Whats On?

Do you want to try out the IV24 in a 4000, or a Retina board? Like to see OpalVision on an 040 or test drive the *Multi-Platform Amiga from Hell?* All are fully installed **only** at Amitech in Cronulla now.

Mail/Phone orders always welcome.

**Try Before
You Buy!**

Amitech is open
9 to 5 Monday to Saturday
and for *latenight shopping on Thursdays*

What's new.

Well it's back to the old format of a news letter.

I have been to the WOC in New York in March and the biggest thing I noticed was the lack of enthusiasm for the A500-2000 series.

Of interest was the supposed AGA Upgrade Board. A beta version that I saw running seemed to work well BUT at a price of US\$999.00 (A\$1600.00)

A much better way to get AGA . . . go 24bit with the RETINA card. This card allows you to display up to 2048 x 2048 res on the Workbench screen in full 24 bit, with full anti-flicker capabilities. The cards come with up to 4Meg of Video RAM from \$895.00. That, methinks, makes better sense than the AGA upgrade.

The most impressive item I saw in New York (aside from the 4000 Tower) was the Emplant stand, with a crowd, 10 deep, having a look. Thank goodness that the board works fine now. All software bugs seem to be fixed and at last I can sell this great board again.

At \$699 the EMPLANT is excellent value and Amitech was able to secure Australian rights to import and service this product.

CSA has launched a NEW A1200 product. A 50Mhz accelerator with a 50Mhz "882 and room for a RAM/Clock and SCSI controller. At \$1395 this will make your 1200 run faster than a 4000 in many ways.

Plus CSA's networking system means you can run all your Ami's together.

All the best and see you at the WOC in Sydney. Rob.

PS There was an error in the price of the VOIDAX II modem last month . . . it should have been **\$645**. A very good price for a brilliant modem!

EMPLANT - the ONE Emulator **\$699**

Finally . . . ONE board to emulate ANY Computer or OS on your Amiga in full colour, AGA or 24bit and keep the Multi-tasking going.

Any A500/1000 A2000/2500 or 3000 can now use Apple or PC software as this board emulates the OS in RAM. It has highspeed dual serial interface (independently usable from Amiga) and completely supports Apple Talk for Mac printers etc. The SCSI interface (optional) supports up to 7 SCSI devices at once including CD ROM and Tape Backup.

Emplant runs at 80 - 85% the speed of a Mac Quadra!

Supports Custom EPROMS, SIMM modules & Static RAM. Mac ROMs not included.

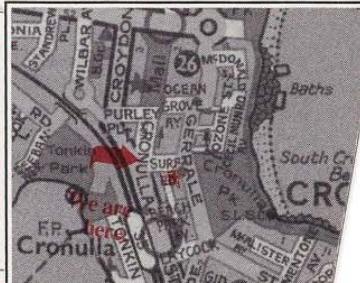
CSA's Twelve Gauge! **050Mhz \$1395**

Build an A1200 Workstation!

- 50 MHz 68030 "Burst Mode" DRAM accelerator + 50 MHz 68882 socket
- Special 40 MHz 68EC030 version available
- Add-on SCSI Ctrl for CD ROM, tape backup, optical & removable media drives
- 32-bit Burst Mode DRAM 1,2,4,8,16 or 32 Mbyte. Use std 60ns DRAM SIMMs
- Optional autoconfig ROM supports autoboot/hardware configuration
- Installs into trap door slot of A1200

**We are easy to find,
have easy parking
and friendly service.**

**We are at Shop 9,
2a Surf Road,
Cronulla.**



Here will you find us? Down the road from our old shop
Shop 9 / 2a Surf Road Cronulla NSW
Phone Orders are welcome

Phone (02) 544 1874
08 49 3232

Cheesburger BBS (02) 544 1248 Fax (02) 544 1873



For Beginners Andy's Attic

Exploring WB2.0

by Andrew Leniart

Last month we began exploring the contents of the WB Tools Drawer and had a bit of a fiddle with IconEdit. We conclude our look at IconEdit this issue and take a look at some of the other bonza utilities which came with the upgrade.

IconEdit Continues

Ever wondered how some magazines create those fab looking disk icons for their disk magazines? The hardest part if you're not much of an artist is creating the actual shell or shape of the disk. I remember agonizing over this task in *Deluxe Paint* for what seemed like endless hours a few years ago when I was compiling disks for PD libraries. What I wouldn't have given at the time for a decent icon editor that had the ability to

load in existing icons and allow me to modify them to what I wanted.

IconEdit allows you to do that and more. Simply load in any .info file which takes your fancy and modify it to your heart's content. You then have the option of saving it as a Disk, Project, Tool, Drawer or Garbage icon. Even better, you have the option of saving the image as an IFF brush, so you can load it into sophisticated paint programs such as *Deluxe Paint*. There you can make intricate changes which are not possible in IconEdit and load the brush back in to change it back into an icon file. By the same token, load in any IFF pic or brush which you like and turn it into an icon. It's all made possible with the pull down menus in IconEdit.

IconEdit rivals similar utilities in public domain circles. So if you've been

using a PD editor to manipulate icons with, do yourself a favour and take a look at the new IconEdit program. You're in for a few nice surprises.

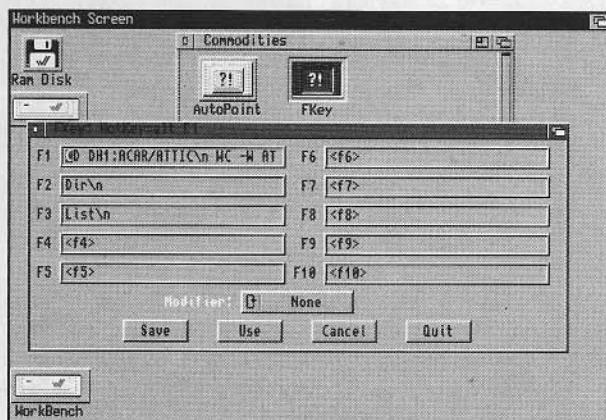
What's a Commodity?

The introduction of a Commodities Drawer and handler to WB2.0 seems to have caused confusion to many Amiga owners. A look in the Oxford Dictionary gives a meaning of "Useful thing; article of trade". Well, I guess it's kinda right. Commodities are certainly useful, but tools of trade? Nah ... A better explanation: A commodity is basically a program which is useful in enhancing your Workbench or Shell working environment. These programs do all sorts of nifty things like allowing us to pop up a CLI window by the press of a couple of keys to things like being able to assign function keys to perform certain tasks for us with the press of a single key.

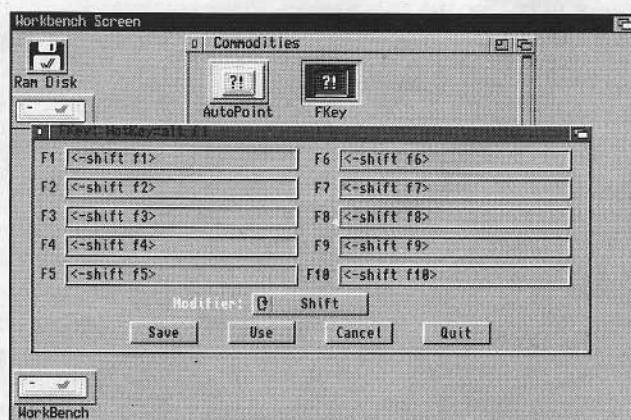
You can already find many of these little gems written by PD/ShareWare authors in the public domain libraries and as time goes on, so will the amount of programs grow and become available to us. This statement is as true as saying computers will continue to be developed and operating systems will be enhanced. Trust me on this one.

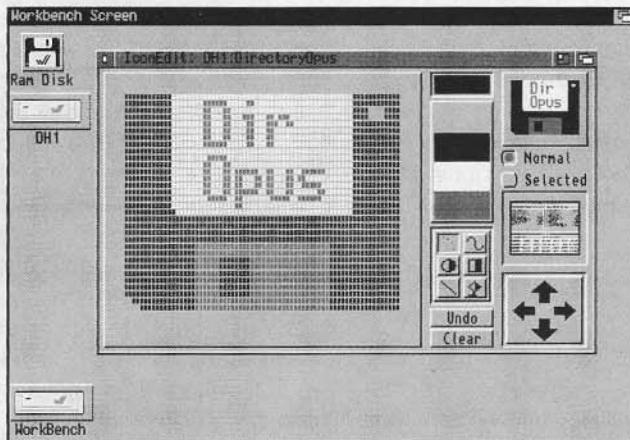
We'll be looking at some particularly useful PD commodities as they become available in future issues. For the time being, however, let's take a squiz at a few that Commodore sup-

Using F Key to define your own hot keys



F Key allows for keyboard modifiers such as Shift and Alt





Icon Edit is vastly improved over the workbench 1.3 version

plied to us with the WB2 upgrade and see if we can work out how and why they may be useful to us.

Commodities Drawer

Find the Commodities Drawer in the Tools sub directory of your Workbench disk. In there, you'll find about a half a dozen of em. Let's have a look at them.

NoCapsLock

Ever been frustrated by that annoying little Caps Lock key on the Amiga's keyboard? If you do a fair bit of word processing or typing, be it letters to friends or family, school assignment or whatever, then I would bet that quite a few of you would answer yes to this question. I know it's frustrated this little black duck more times than I care to admit!

Recognize this scenario? There you are typing away madly in the wee hours of the night trying to get your school assignment done in time to get a few hours of shuteye (or in my case, trying to make sure I get this column finished before the deadline ... err ... just kidding Mr Farrell, I do them in plenty of time ... honest) and you end up with sentences or worse, paragraphs that look SOMETHING LIKE THIS BEFORE YOU REALIZE THAT YOU'VE ACCIDENTALLY HIT THAT BLASTED CAPS LOCK KEY, making you backspace over everything you've typed and type it in all over again? Arghhhh!

Of course, a simple solution to the problem is to grab a pair of pointy nosed pliers from the garage and yank that troublesome little blighter out of the keyboard just like a dentist gets rid of an annoying tooth for you. Problem solved! Well, a solution it might be, but not a desirable one I'll admit.

Enter the NoCapsLock Commodity to the rescue. Double click on this little gem and your problems are solved. What it effectively does is temporarily make that key non-existent so far as the Amiga is concerned. You can now accidentally hit it as many times as you like and the Amiga will simply ignore the press of it completely.

If you find that you need it again, simply double click NoCapsLock icon again and it will be deactivated. Works great and is a commodity I now use each and every time I write an article for ACAR.

AutoPoint

This one is also a goodun, especially for those that have a few windows and multiple CLIs open on their Workbench at the same time. So what's it do?

Quite simply, it makes any Window or Shell ACTIVE immediately the mouse pointer is over the top of it. Normally to make a window active you need to put the mouse in the window and then click once. The need for this click is eliminated when running AutoPoint. Check it out, it really works and does save time.

Blanker

Yup, you guessed it matey, a screen blunker is what it certainly is. Well okay, okay, so it hasn't got any of the bells and whistles that other available PD screen blankers boast like winged toasters flying around on your monitor or fancy lines scrolling around on the screen, but heck, who needs them? All we want to do is blank the screen when there is no activity to help preserve our monitor, right?

Double click it and you'll get a small window asking you how many seconds you wish to pass before it blanks your screen for you. Specify the amount of time desired and click on the HIDE gadget to make it do its stuff. Alternatively, you can also select Hide from the pull down menus to achieve the same result.

Get rid of it by pressing SHIFT-F1 to bring the window back up again and either click on Quit to kill it or select Quit from its pull down menu to achieve the same result. Simplicity itself and so it should be for a little proggy like this.

A final note on this one. Blanker will default to 60 seconds each time you start it up for the first time. To change this default to your own preferred time, edit the icon's Tool Type by clicking on it once to highlight it and then pressing "Right Amiga-I" to bring up the icon's information screen.

Now if you prefer 90 seconds instead of the default, edit the SECONDS=60 to say SECONDS=90 and save the changes. From there on, each time you fire it up, it will already have 90 seconds as the default blanking time. Neat huh?

ClickToFront

Got a troublesome rodent (more commonly known as mouse) that's a tad jerky and hard to aim? ClickToFront may save you some time and frustration by not having to locate your pointer on a window's depth gadget to move another window to the front.

Double click this little sucker and from there on, all you'll need to do to shuffle windows around is place your mouse pointer anywhere within the window and double click the left mouse

button while holding down the selected qualifier key. What's a qualifier key you ask?

A qualifier key is simply a user (that's you!) selected key, usually either the Shift, Left or Right-Alt or Ctrl key on your keyboard which is held down to initiate the action of any number of utilities including this one.

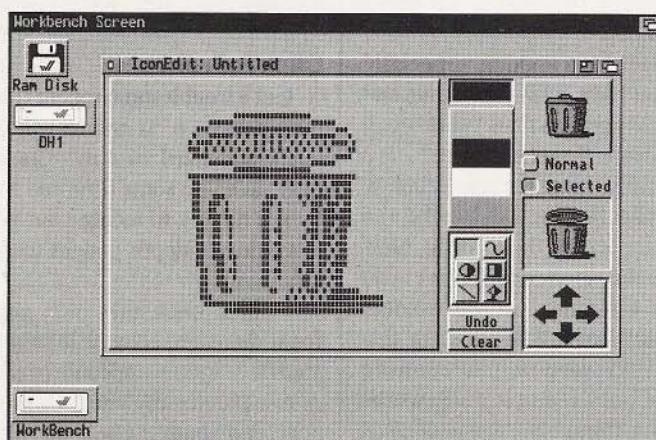
ClickToFront defaults to the Left-Alt key as its qualifier when fired up, however you can change this in the tool types section of its icon to use the Right-Alt key or Ctrl key instead as its qualifier. Change it in the same way you changed the seconds value in the Blank-ing commodity discussed earlier.

Fkey

This is yet another little gem and potential time saver. What it does is allow you to assign any text which can include Workbench c: commands to any one of your Amiga's ten function keys. By using the Modifier gadget in Fkey, it is possible to assign 20 different functions to your ten function keys by pressing the SHIFT key before pressing the Function key you wish to use.

This is a bonus to people like myself that use the Cli/Shell a fair bit and saves quite a bit of key bashing to achieve complicated tasks. For instance, I use a PD word counting utility called WC to count the number of words when writing my column to keep its finished size as close as possible to the size stipulated by ACAR for each issue. To do this task, I've made my F1 function key

You can easily create simple icons of your own to replace the standard Workbench versions



perform the following task for me in a shell:

1. Change to the work directory I write the column in.

2. Count the words present in the column I'm currently writing and report on how many there are all in one key press.

The F1 function key in Fkey is configured like so:

CD DH1:ACAR/ATTICn WC -W ATTIC14n

So by simply flipping my open shell window to the front of my text editor, I can just press F1 and get the following report on the progress of this article. "Attic14 has 1448 words at this time".

Works great. Now with a little bit of thought and imagination, you can use this great little commodity to save you heaps of typing time in all sorts of applications. Have a play with it. Just double click the Fkey icon in the commodity drawer and start configuring.

Ihelp

The last commodity with which Commodore supplied us is Ihelp. Its purpose is to allow you to use your keyboard rather than your mouse to perform certain functions with windows that you would normally do with your mouse. Handy for those that get annoyed at having to chop and change from mouse to keyboard all the time.

Started by simply double clicking its icon, it also uses your Amiga's function keys (F1 through to F5) to do the voodoo, which it will do, so well.

F1 works only with application windows such as those opened by other programs and does not affect the normal Workbench windows in any way.

F2 makes "any" active window go to its full size while F3 does the reverse and will shrink the window to its minimum size.

F4 on the other hand shuffles screens for you if you have more than one open and will bring the screen at the very back of the lot to the very front.

F5 will perform a ZOOM function on any active window in the same way as if you had clicked on the windows Zoom gadget with your mouse.

Also worth mentioning here is that the (F1 through to F5) function keys Ihelp uses are simply the ones that it defaults to as supplied by Commodore. You can change this quite simply by highlighting the icon, pressing Right Amiga I and once again editing the icons Tool Types values to reflect which function keys you would prefer to use for any of the above Ihelp functions. Quite a neat commodity, methinks. No?

Concluding

Well, I certainly hope that what I've written here clears up some of the confusion some of you have been experiencing, and explains to you what commodities are and how we can use them to enhance our work environment. If it hasn't, feel free to write in and specify what it is you don't understand. We'll soon have you sorted out via Andy's Attic pages one way or another.

That wraps up yet another month of Andy's Attic. Next issue, you can look forward to more information on how we can control and manipulate Commodore supplied as well as PD obtained commodities via yet another program supplied with WB2.0 called Commodity Exchange. We'll also explore other aspects of our new operating system. There are tons of new things to play with in this release of WorkBench so don't be shy.

If you ain't got it yet, get out there and buy it. If you have got it, then fiddle. It's a great way to learn more about your favourite hobby. Till next time. □

You Can CanDo

Your Own Directory Utility

Part 2

by Greg Abernethy

Continuing on with last month's tutorial, I will be adding some features to the Directory Utility, including the copy, delete, move, makedir and rename functions, as well as a Picture, Brush and Icon viewer, a Sound Player and a Text File viewer. Some scripts require editing to accommodate the new features. I'll deal with these first.

Editing the Document Scripts

The "Left" and "Right" Document scripts are as follows:

"Left" Document CLICK Script
WorkWithDocument "Left"
Do "CurrentSide",1,0
Let Current = "L"
If LeftDir <> ""
 SetCurrentDirectory LeftDir
EndIf
Let line = TheLineNumber
MoveCursorTo STARTOF LINE
If TheCharacter = "*"
 Delete CHARACTER
Else
 If TrimString(TheLine) <> ""
 Let f = TrimString(TheLine)
 WorkWithDocument "LeftInfo"
 Do "FileInfo",f
 WorkWithDocument "Left"
 Type "*"
 EndIf
EndIf
"Right" Document CLICK Script
WorkWithDocument "Right"
Do "CurrentSide",0,1
Let Current = "R"
If RightDir <> ""
 SetCurrentDirectory RightDir
EndIf
Let line = TheLineNumber
MoveCursorTo STARTOF LINE
If TheCharacter = "*"
 Delete CHARACTER
Else
 If TrimString(TheLine) <> ""

```
Let f = TrimString(TheLine)
WorkWithDocument "RightInfo"
Do "FileInfo",f
WorkWithDocument "Right"
Type "*"
EndIf
EndIf
```

Explanation: There are not many changes to this script, other than adding a section to display information on the currently selected file. When the user clicks on a file or directory, information relevant to that file is displayed in a document under the directory window. (See the "FileInfo" Routine for more information.)

```
"Left" Document DRAG SCRIPT
If TheLineNumber <> line
    WorkWithDocument "Left"
    MoveCursorTo STARTOF LINE
    If TheCharacter = "*"
        Delete CHARACTER
    Else
        Type "*"
    EndIf
    Let line = TheLineNumber
    PositionOnLine line + 1
EndIf
```

Explanation: I managed to work out a way to get the list to scroll the length of the directory listing. Simply add the line "PositionOnLine line + 1" to be able to

select or deselect the entire directory listing. Repeat this for the DRAG SCRIPT of the "Right" DOCUMENT.

Creating the File Information Windows

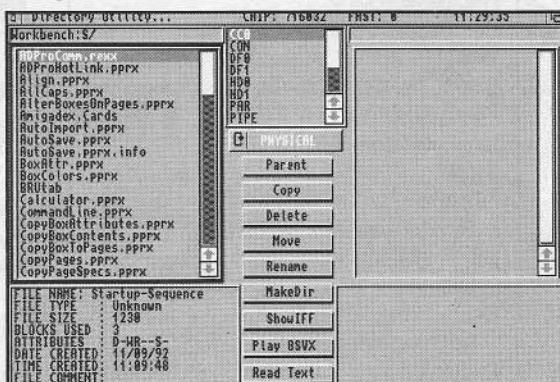
The specifications for the two windows are:

LEFT FILE INFORMATION WINDOW
SPECIFICATIONS
DOCUMENT OBJECT NAME "LIDoc"
DOCUMENT NAME "LeftInfo"
DOCUMENT TYPE Memo Document NO
TYPING
DOCUMENT ORIGIN X = 7 : Y = 186
DOCUMENT SIZE Width = 256 : Height = 64
BORDER Double Bevel
RIGHT FILE INFORMATION WINDOW
SPECIFICATIONS
DOCUMENT OBJECT NAME "RIDoc"
DOCUMENT NAME "RightInfo"
DOCUMENT TYPE Memo Document NO
TYPING
DOCUMENT ORIGIN X = 378 : Y = 186
DOCUMENT SIZE Width = 256 : Height = 64
BORDER Double Bevel
NO SCRIPTS
Routine "FileInfo"
Let f = ARG1
If GetWord(f,1) = "[Dir]"
 Let f = GetWord(f,2)
EndIf
Let i = FileType(TheCurrentDirectorylf)
GetFileInfo TheCurrentDirectorylf,s,n,a,d,t,c
Clear DOCUMENT
Type "FILE NAME:"||lf,NEWLINE
Type "FILE TYPE :"||i,NEWLINE
Type "FILE SIZE :"||s,NEWLINE
Type "BLOCKS USED :"||n,NEWLINE
Type "ATTRIBUTES :"||a,NEWLINE
Type "DATE CREATED :"||d,NEWLINE
Type "TIME CREATED :"||t,NEWLINE
Type "FILE COMMENT :"||c,NEWLINE
MoveCursorTo STARTOF DOCUMENT

Explanation: This routine gets and displays information when the user clicks on a file in either directory window. Read the CanDo manual for a full description of the GetFileInfo command.

Creating the SubDeck

The SubDeck for the Directory Utility consists of two cards. One



Card is for getting user input for renaming files, and the other is for getting user input for making a directory.

I have named my SubDeck as "DirSub" and placed it in the same location as the main directory deck.

The Rename Card

The specifications for the window are;
WINDOW NAME "Rename..."
WINDOW SPECIFICATIONS
X POSITION = 200 : Y POSITION = 100
WIDTH = 240 : HEIGHT = 65
NUMBER OF COLOURS = 4
DRAG-BAR GADGET
WINDOW OPTIONS
THE WINDOW HAS VISIBLE BORDERS
TRY TO OPEN WINDOW ON THE CURRENT SCREEN
CARD SPECIFICATIONS
CARD NAME "Rename"
AFTER ATTACHMENT SCRIPT
Let old = ARG1
SetText "Old",old
SetText "New",old
SetObjectState "New",ON

Explanation: The variable "old" contains the name of the file to be renamed. The name is displayed in the "Old" field and the cursor is highlighted in the "New" field.

Text Entry Fields

There are two fields for displaying and receiving information on the file to be renamed. The specifications are;

OLD FILENAME FIELD SPECIFICATIONS

Field Name = "Old"
Horizontal = 10 Vertical = 15
Width = 220
Border = DOUBLEBEVEL
FieldType = "Text"
Left Justification
No Script

NEW FILENAME FIELD SPECIFICATIONS

Field Name = "New"
Horizontal = 10 Vertical = 37
Width = 220
Border = DOUBLEBEVEL
FieldType = "Text"
Left Justification
Script
If TextFrom("New") <> ""
SendToParentDeck "R",old,TrimString
(TextFrom("New"))

```
Quit
Else
  SetObjectState "New",ON
EndIf
```

Explanation: When the user enters the new name and presses RETURN, the new and old names are sent to the Main Deck along with the argument "R" to identify it is a rename operation. If the user presses RETURN without entering a name no action is taken. (See the MESSAGEFROMSUBDECK script in the main deck).

```
Cancel Button Specifications
Button Name = "Cancel"
Horizontal = 83 Vertical = 32
Border = Shadow
Button Type = "Text"
Text = "Cancel"
RELEASE SCRIPT
Quit
```

THE MAKEDIR CARD

The specifications for the window are;
WINDOW NAME "Enter Directory Name..."
WINDOW SPECIFICATIONS
X POSITION = 200 : Y POSITION = 100
WIDTH = 240 : HEIGHT = 47
NUMBER OF COLOURS = 4

DRAG-BAR GADGET
WINDOW OPTIONS
THE WINDOW HAS VISIBLE BORDERS
TRY TO OPEN WINDOW ON THE CURRENT SCREEN
CARD SPECIFICATIONS
CARD NAME "Makedir"
AFTER ATTACHMENT SCRIPT

```
SetObjectState "Dir",ON
TEXT ENTRY FIELD
There are one fields for receiving information on the name of the directory to be created. The specifications are;
```

DIRECTORY NAME FIELD SPECIFICATIONS

```
Field Name = "Dir"
Horizontal = 10 Vertical = 17
Width = 220
Border = DOUBLEBEVEL
FieldType = "Text"
Left Justification
Script
If TextFrom("Dir") <> ""
  SendToParentDeck "M",TrimString
  (TextFrom("Dir"))
  Quit
Else
  SetObjectState "Dir",ON
EndIf
```

Explanation: When the user enters the directory name and presses RETURN, the name is sent to the Main Deck along with the argument "M" to identify it as a makedir operation. If the user presses RETURN without entering a name no action is taken. (See the MESSAGEFROMSUBDECK script in the main deck).

```
Cancel Button Specifications
Button Name = "Cancel"
Horizontal = 83 Vertical = 32
Border = Shadow
Button Type = "Text"
Text = "Cancel"
RELEASE SCRIPT
Quit
```

Save this deck and place it in the same directory as the main application. Replace the BeforeAttachment script to allow the loading of the SubDeck.

Reload the Main application and go to the MESSAGEFROMSUBDECK section.
MESSAGEFROMSUBDECK SCRIPT

```
If ARG1 = "R"
  Let old = ARG2
  Let new = ARG3
  If Current = "L"
    Dos "c:rename"|||LeftDir|||old|||AS"|||LeftDir|||new
    Do "ShowDir",LeftDir
  Else Current = "R"
    Dos
    "c:rename"|||RightDir|||old|||AS"|||RightDir|||new
    Do "ShowDir",RightDir
  Endif
EndIf
If ARG1 = "M"
  If Current = "L"
    Dos "c:makedir"|||LeftDir|||ARG2
    Do "ShowDir",LeftDir
  Else Current = "R"
    Dos "c:makedir"|||RightDir|||ARG2
    Do "ShowDir",RightDir
  Endif
EndIf
```

Explanation: If the user was renaming a file, ARG1 will contain "R". If the user was making a directory, ARG1 will contain "M". I use the Dos command "rename" to rename the old file with the new name. The directory listing is then redisplayed. The "makedir" command is used to create the requested directory in the current location.

Part 3 next month. □

BLIZZARD A1200/4 MEMORY BOARD

To Suit
A1200

\$599

Fast Memory For True Speed

Introducing the Blizzard 1200/4

It features:

- Fully populated 4Mb 32-bit FAST RAM expansion
- Fits perfectly in to the "Trap Door" slot

- A Math Co-processor Socket
- Plus the option to expand the board to 8Mb with the Blizzard 1200/ADD4 Memory Module
- 2 year warranty

*** VALUE * VALUE * VALUE * VALUE * VALUE * VALUE ***

Z3 FASTLANE SCSI-II & MEMORY BOARD

To Suit
A3000
A4000

\$995

THE NEW DEFINITION FOR SCSI-II PERFORMANCE

- High performance FAST SCSI-II DMA controller
- 32 bit Zorro III interface (A3000/A4000)
- Asynchronous Host/SCSI interface with up to 33 MB/sec burst transfer rate by use of bi-directional FIFOs
- 64 Mb memory expansion option, upgradeable with 1M*8 SIMMs to 16Mb, with 4M*8 SIMMs to 64 Mb
- External SCSI-II port
- Up to 7 Mb/sec asynchronous transfer on SCSI bus

- Up to 10 MB/sec synchronous transfer on SCSI bus
- Full support of Rigid Disk Block, SCSI Direct, diskchange w/ removable media (auto-mount and auto-unmount of different partitioned volumes), CD-ROM, CDTV, A-MAX II and MS-DOS formatted volumes (cartridge and disk drive exchange with PCs possible)
- DYNAMICACHE™ for additional performance increase
- Made in Germany, 2 year warranty

BLIZZARD A2000/500 TURBO MEMORY BOARD

To Suit
A500
A1000
A2000

\$399

INCL.
Shadow RAM

Do You Need More Memory & Speed??

- 68000 CPU at 14 MHz.
- Memory Expansion for up to 8Mb of FAST RAM.
- Upgradable with 1,2,3,4,5,6 or 8Mb of FAST RAM.
- Common 256Kbit*4 or 1Mbit*4 memory chips can be used.
- In 14MHz operation and with at least 1Mb FAST RAM installed, an average 100% performance increase is obtained.

- Switchable between 7 and 14 MHz operation modes by software or hardware.
- Full DMA compatible memory.
- Fully autoconfiguring memory.
- Switchable FAST RAM enable or disable option.
- 2-year warranty.

Commodore
AMIGA
A600, A1200
A3000T, A4000

Only Available Directly from:

Phoenix Microtechnologies
The AMIGA Specialists
18 Hampton Rd. Keswick 5035
Tel:08 293 8752 Fax:08 293 8814


Phoenix
MICROTECHNOLOGIES PTY LTD
ACN 008 268 595

Education Review:

Word Construction Set

by Stan Nirenburg

I've been observing our young son developing his communication skills over the last few years. As a toddler, much of his communication was by pointing and showing by example. As he grew older, he started to use speech, which gave him a much better means of expressing his desires and ideas. At five, he still relies mostly on speech to communicate with the people around him. He has also become better at drawing, which has allowed him to explore the world around him through another medium.

His current challenge is to learn to read and write. The written language has been one of the cornerstones of modern civilisation: it enables us to express ideas and to learn from others without actually making physical contact; it enables us to learn about history and how things work and to express abstract ideas.

The use of both the written and spoken language requires us to have a useful and extensive vocabulary and to be able to use words in the correct context. In addition, to have our written ideas understood by others, it is imperative that we spell words correctly. This is where *Word Construction Set* comes in. It aims to assist students of English in word recognition, vocabulary skills and correct spelling.

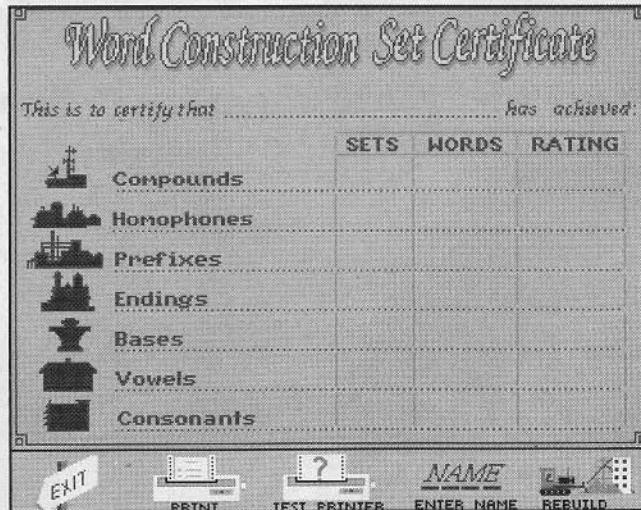
Word Construction Set comes in a handsome box with a picture of workmen assembling a sign on the front. The program itself comes on three

disks and is accompanied by a small but comprehensive instruction manual. Although the manual suggests that *Word Construction Set* can be run from Workbench, I had no success when I attempted to do so.

The program is not copy protected, although it does have key word protection - the user must look up a word in the manual and type it in before the program will start. The good news is that a backup of the disks can be made.

In theory, it should be possible to copy the program onto a hard disk, however no utility is provided for this, and since I could not operate the program from Workbench, this would be of little value - a bit of a pity. Despite this small shortcoming, the program operated well and was fairly fast in loading itself from floppy disk.

Progress Chart



Control of the program is simplicity itself - every aspect of *Word Construction Set* is mouse driven. This is well within the grasp of potential users of the package - it is aimed at students from about age seven. After coming to grips with the workings of the program with the help of the instructions, using *Word Construction Set* was a breeze!

Up and Running

Seven different sets of words are taught in *Word Construction Set*, each word type being represented by a building. The object of the exercise is to complete all seven buildings with as few errors as possible. Each building is made up of a number of stages of ten words and each segment gets progressively harder. As each word is completed, another brick or tile is added to the building.

The program presents the player with a pile of bricks with part of a word on each brick. The computer speaks the word that is to be constructed and the player must then choose the two bricks that make up the required word. The spoken word is further reinforced by a picture representing the word.

For example, a picture of a truck is shown and the word "truck" is spoken by the computer. The player must choose the bricks with "tr" and "uck" in the correct sequence to form the word. When the word is completed, the computer finishes off a sentence with the word - "Don's father drives a truck" in this example - to show usage and another part of the building is erected.

The user is given a number of tools to operate the program. The tools include:

CONSTRUCT - start or return to the exercise

REBUILD - repeat the exercise just completed

REPORT - shows a report of progress to date.

The report feature is a good idea as it plots the progress of the student and in addition can be printed for a permanent record.

A further set of tools is

available to help build the words:

TEST - tells the program to check whether you have constructed the word correctly.

LIST - allows you to review the spelling of the current word. Really useful if you get stuck.

SOUND - listen to the word again.

ERASE - lets you cancel your effort on the current word so that you can have another go.

For certain endings, the root word needs to be changed. This is done through the use of three additional tools:

DROP E - allows you to change "tape" into "tap", for example, for use in "tapping"

DOUBLE - "tap" can be changed to "tapp" for use in "tapping"

Y TO I - "dry" is changed to "dri" for use in "dried".

All in all, a very friendly set of commands which allows the user to quickly master the interface and therefore concentrate on the game itself.

The seven areas of word and sentence construction that are covered include consonants (simple words with short consonant sounds), vowels (long vowel sounds), certain combinations such as OU and OW, endings (including plurals and verbal stems), compounds (e.g. "base" and "ball" to make "baseball"), homophones (similar sounding words such as pear and pair), prefixes (un, pro, milli, etc) and bases (words using Greek or Latin bases such as "arch"). Hundreds of different words are presented in the package, enough to ensure many hours of activity.

Problem Areas

One shortcoming of the program is the spoken sound. I find that the use of speech in educational software is a must, and this program is an excellent example of what

can be achieved. In fact, it would be very difficult to have a spelling drill without someone or something speaking out the words.

The one weakness that I found was that the pronunciation of some words was so imprecise that the task of spelling the words became almost impossible. This is not a reflection on the programmers but rather on the speech synthesizer built into the Amiga. A more desirable approach would have been to use sampled sounds which would have guaranteed correct pronunciation.

However, this would have taken up considerable disk space given the number of words that are presented in this package and may only be practical in a CDTV version. I hasten to add that this shortcoming only manifested itself occasionally, and I could get around the problem by looking up the word list screen which can be accessed by a mouse click. The word list showed the current word being constructed and a picture representing the word.

Conclusion

Overall, a good program to help students learn English. The graphics are well drawn, though somewhat unexciting. The use of speech enhances this program enormously, despite the shortcomings I have discussed above. The use of pictures and the word list to help the student solve the problem makes life somewhat easier and less frustrating. However, the use of on line hints might have further enhanced the program as an educational tool.

Learning to spell and construct words and sentences is probably not the most exciting activity in the world. However, this program is aimed at children at the primary school level, and I think that at this age group the attention span will be

WORD CONSTRUCTION SET

Publisher: Lascelles Productions

Distributor: Don Quixote Software
(076) 391 578

RRP: \$69.95

Category: English Language

Comments: Good quality program

that teaches youngsters the basics of spelling and word and sentence construction

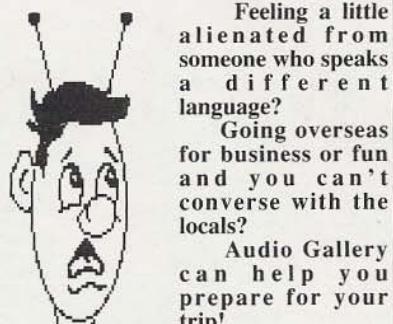
Age Group: 7 plus

Rating: ****

Mallee Software

Sole Australian Distributors of
Audio Gallery language tutorials.

We guarantee service and support
throughout Australia because we alone
have the U.S. manufacturer's support!



Romance Languages - \$119.00.

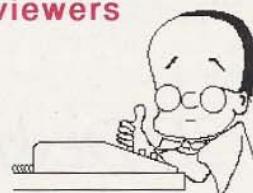
French, German, Spanish, Italian and
E.S.L. German, Italian and French.

Oriental Languages - \$149.00.
Japanese, Chinese, Korean, Russian and
E.S.L. Chinese and Japanese.

Package contents:

Each Audio Gallery language tutorial
contains a set of 7 or 8 disks (depending
on language), with 600 - 800 words of
clearly digitized native speech. A
grammar manual is standard in all but
E.S.L. and HD installation is a breeze.
Audio Gallery even has a test option to
test your level of progress.

The reviewers say:



"Audio Gallery's greatest strength lies
in its ability to reproduce what a word
sounds like when properly pronounced by
a native speaker of the language." *Amiga
World*.

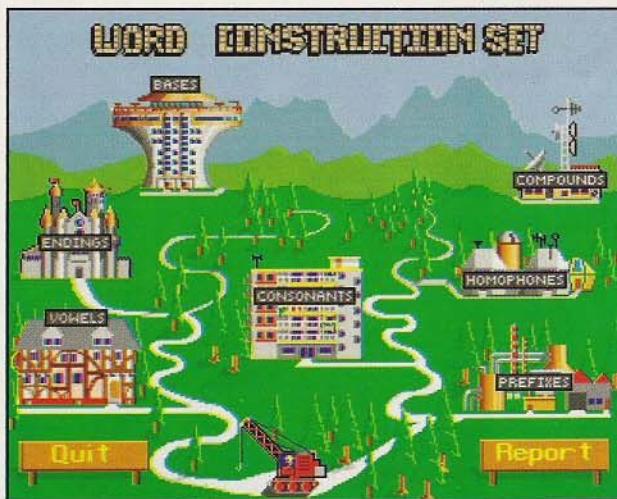
"...if you're planning a trip abroad, a
good phrasebook and the appropriate
Audio Gallery title will give you
everything you need to know to survive in
the language. I highly recommend the
whole series." *.info*.

Schools: We have special Site
License deals available for you!

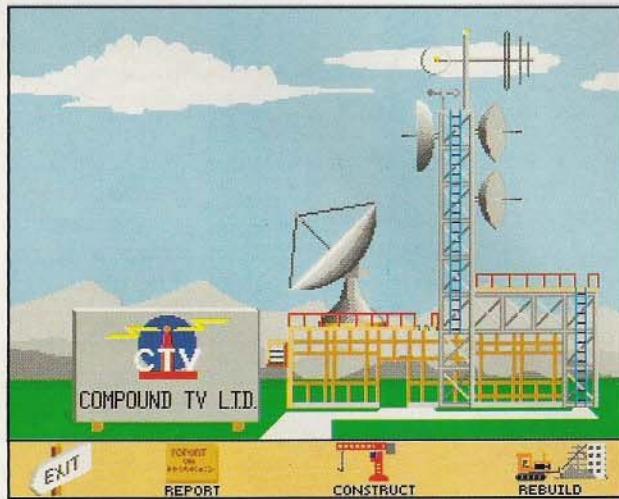
Dealer enquiries welcome.

***** Retail Special:** Mention this
advertisement and get \$10.00 off
any Audio Gallery you purchase!

Mallee Software
Underbool South Road
Underbool
Victoria 3509
Tel: (050) 94 6358
Fax: (050) 94 6325



Word Construction Set



Construction Site

long enough to allow children to attempt to hone their word skills in small doses.

I think that *Word Construction Set* will find a place both at home and at school, and could be useful as a remedial tool. This is a well researched and polished product.

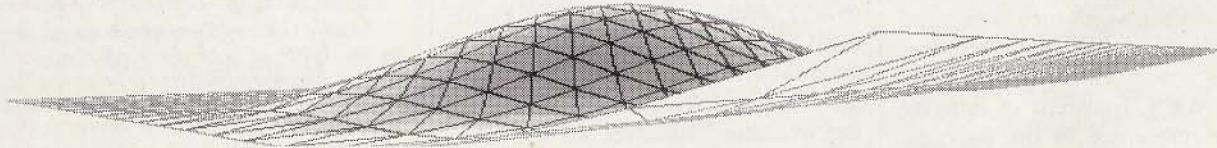
RRP \$69.95. Published by Lascelles Productions and distributed in Australia by Don Quixote Software (076) 391 578. Other products published by Lascelles include *The Connoisseur Fine Art Collection* for CDTV, *Fractions!*, *Back To Basics*, *Look! Hear!*, *KIM* (a memory game)

and *ClockWorks*. We will review some of these products in forthcoming issues.

As usual, please write in with your comments, questions, etc to me care of ACAR or directly to PO Box 136, Forest Hill, Vic, 3131. □

REAL 3D V.2

3D Desktop Animation Has Changed Forever.



COLOR COMPUTER SYSTEMS P/L

REAL 3D V.2

3D Animation

Professional 3D animation, modelling, and rendering software. State-of-art features include Skeletal control, Collision Detection, Inverse Kinematics, Particle Animations, Depth of Field, Motion Blur - Over 26 animation methods and much, much more. The best 3D package on any desktop platform - Revolutionary - You won't believe the performance or the price.

MEDIA - FLEX

Digital Video & Audio

Digital ONLINE Non-Linear Editing, 8 track Digital Audio, 2D & 3D Animation, Titling, Image Morphing , DVE's - Dual computers (2 users) with 20" 1280x1024 monitors - Up to 18 GB data storage (1.5 Hours of Broadcast Quality Video) - Networking to PC, AMIGA & MAC - All in one system cabinet - Many options - A fully professional Multimedia & Video Production Facility.

Talk to us about your Professional PC and AMIGA Desktop Video and Multimedia needs.



Many more products - 16 bit pro sound card, Plug-in TBC & V-Scope, JPEG & MPEG cards

Demonstrations of MEDIA-FLEX and REAL 3D V.2 at WOC.

288 Alexander Drive, Dianella W.A. 6062 Ph: (09) 375-3018 Fax: (09) 375-3019

Introducing ImageFX™ No professional art department should be without it

Only ImageFX gives your imagination total image processing freedom.

Whatever visual medium you work in—photography, graphics, video, animation—ImageFX is the one tool you absolutely must own!



It's like having a professional art department at your fingertips.

ImageFX is faster, easier to use, more expandable, more adaptable and more powerful than any other product of its kind for the Amiga®.

Here are just a few ways ImageFX expands your visual horizons:

- ★ Scan in or framegrab from a full range of image capturing devices directly into your Amiga.
- ★ Use your Amiga as an image prepress, color correction system including, CMYK, RGB, HSV and YUV.
- ★ Digitally retouch any image with the most complete set of filters, color gradients, image distortions, masks, and text handling tools available.



Carsmear by Mike Vunck

Give your Amiga graphics and animations new magikal powers — at an affordable price!

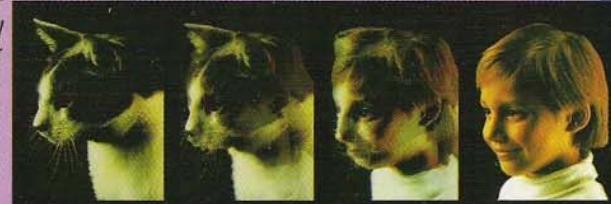
If you need ImageFX™ morphing power alone, CineMorph is for you.

CineMorph transforms any image, or images, from one to another quickly, easily and with the professional quality "morph" results you see at the movies and on TV.

With CineMorph you can:

- ★ Warp single or motion images, create full motion morphs, merge scenes, and perform digital dissolves.
- ★ Set different speeds for different parts of the morph.

- ★ Work quickly and easily with Amiga style controls, then output directly to any Amiga, DCTV™, or HAM-E™ systems — including 24-bit display boards like GVP's IV24™.



Remember: When you're in the market for morphing, and only morphing, CineMorph is the maximum performance morph power.

CineMorph is the must-buy morph software.

cinemorph™

Amiga is a registered trademark of Commodore-Amiga, Inc. ImageFX, CineMorph, and IV24 are trademarks of Great Valley Products, Inc. All other trademarks are the property of their respective owners.

© Copyright 1992 Great Valley Products, Inc.

Distributed in Australia by



POW
PERIPHERALS PTY LTD

1st Floor, 257 Hawthorn Road
Caulfield North, 3161
Telephone: (03) 532 8553
Facsimile: (03) 532 8556

Down the Opal Mine

by Robert Roy

Opal Technology - New Software

Hi there everyone! First some news, then we'll get down to a walk through of a practical uses of Alpha-Paint Mode.

I missed last month's column because I was overseas completing the Reference Manual revisions for V2.0 of the OpalVision software. There are far too many new features to mention, so it's a must-have upgrade. If you don't yet have a letter with your upgrade options then you probably didn't send in your warranty card, so give Opal Tech a call NOW.

New Hardware

By the time you read this the long-awaited video modules will be REALLY close. The Frame Grabber and Linear-key Genlock module, which also includes the Chroma and Luma Keyer, will now be called the Video Processor and will include the Roaster Chip. The external rack-mountable switcher with all the inputs and outputs for Composite, S-Video, RGB or Y/R-Y/B-Y and Audio will be called the Video Suite.

The Scan-Rate Converter will handle deinterlacing and provide dual Time Base Correction (TBC) channels for unlimited switching and mixing of non-synchro-

GEM OF AN IDEA

To edit the Alpha Channel of a cutout brush, save the cutout brush (say to the RAM drive), create a new spare page and load in the cutout brush as an image. Edit the Alpha Channel using Alpha Work Mode, then re-cut the Cutout Brush with the "Use Alpha" option enabled.

nous video sources. A cut-down (and cheaper) scan-rate converter will also be available that does nothing but deinterlacing.

Contact OpalTech for more details, and make a date to come along to see us at the World of Commodore Amiga Show in Sydney, July 3-5. Please note that Opal Tech's stand will NOT be open on the Saturday.

Anyway, let's get down to business.

Using the Alpha Channel

If 24 bits are great then 32 bits are even better, and *OpalPaint* includes full 32-bit functionality. The extra eight bits refer to a 256-level Transparency mask or layer, usually called an Alpha Channel, that can be created and edited using all of *OpalPaint*'s many tools, modes, gradients and other drawing features.

It is useful in at least three ways. Firstly, instead of using a single Global Transparency setting you can paint or process your image "through" the Alpha channel, effectively allowing you to pre-define the transparency for every pixel.

Secondly, by specifying the "Use Alpha" option when creating a Cutout Brush you can tell *OpalPaint* to cut the 8-bit Alpha Channel along with the normal 24-bit image. This Alpha Channel will be used when pasting the cutout, so once again you are effectively pre-defining the transparency for each pixel in the Cutout Brush.

Finally, the Alpha Channel is invaluable when used with the Video Processor as an "Alpha Channel" or Linear Key. The transparency of a 24-bit OpalVision graphic, Amiga graphic or live video overlay to an underlying layer of live video

can be defined on a pixel-by-pixel basis by the Alpha Channel.

Example

Let's look quickly at a practical example. You have been commissioned to produce a promotional video for Andy's Pale Ale. After an opening sequence that includes a glass of ale against Ayer's Rock, the agency wants to introduce short clips of young and interesting people doing interesting and youthful things as if suspended in the liquid. Realising the job will be a snack with OpalVision, you quickly agree and get to work.

First scan the client's picture of the ale glass and load the image into *OpalPaint*. A neutral, solid-colour background will give the best results. Now click on the "AL" button using the Right Mouse Button (RMB) to get to the Alpha Work Mode options menu, then select the solid red background colour (my personal preference, although you may prefer another).

The selected solid colour or grid background will be progressively revealed as higher and higher transparency levels are "applied" to the image. Click OK, and after a few seconds the coloured Paint-Pots will be replaced by a sequence of grey levels that represent transparency levels in the Alpha Channel overlay. White represents 0% or fully opaque, while black represents 100% or fully transparent. Now you can go to work.

Select a mid-grey Paint-Pot and click on the Trashcan using the RMB to "clear" the Alpha Channel to a uniform middle level. The image will now appear to be half hidden by a red sheen. Select white and the filled-freehand tool then carefully remove the mask over the glass using magnify if necessary. Now use the flood fill tool to replace all the mask outside the glass with black. This area will now appear to be bright red as the background is completely revealed - the image is completely transparent in those areas.

Now comes the tricky bit. Paint over the glass using lighter greys for the thicker or highlighted glass (less transparent) and darker greys for the more transparent parts of the glass. Don't forget to use a different grey for the filled and unfilled sec-

**Disk Magazine
Mail Order
& PD**



...for the
best in
Amiga info
and entertainment

NEW FreePost ~ No stamp required
when sending orders! Free Number for
Contributors and Orders: 008 227 418

MegaDisc was designed to help you really learn how to use your Amiga. Tutorials, articles, reviews, hints and tips, useful software, and much more are included to help both the beginner and the veteran to use the Amiga more productively. Not too serious and not too lightweight, MegaDisc aims to show you how to do things. MD is a proven performer for both quality and quantity of information and fun. \$45 for a 3-issue subscription (2 free PD included) \$79 for a 6-issue subscription (4 free PD included) • Order MD 1-32 and Catalogue-on-Disk for \$185. That's 32 info-packed disks! • AmigaDos Manual-on-Disk, with all you need to know of CLI and Workbench(1.3) \$19.95 • Trial Pack ~ MD 32, MegaDos, and Catalogue-Disk for \$29 • Issue 32 ~ \$17.95.

Subscribe now and be in the draw for 30 free PD disks of your choice! Every MD has the latest Virus-Killer, and contains as much material as four conventional magazines, plus material available only on disk. Don't accept imitations or PD rip-offs!

MD 33 AVAILABLE NOW!!

We have the original and best Amiga **Public Domain Disk Library**. Call and get your **FREE Catalogue-on-Disk** and browse at leisure. Our PD collection of over 4500 disks contains databases, word-processors, spreadsheets, demos, graphics, tutorials, animations, utilities and more! All disks are virus-free, and many are unavailable anywhere else. The disks shown on this page are just a small fraction of our collection, which is described in the catalogue. Individual disks cost \$3.50 each, or \$2.50 to MD subscribers. Buy 10 PD disks, get one free ~ ie get 11 PD disks for \$25 or \$35.

DESKTOP PUBLISHING

4 New Type 1/outline fonts 5-packs \$20 each
5 Clip Art 10-packs I - V - b/w, varied \$30
PageStream Fonts 12-Pack - 12 disks full of Type 1 Postscript Fonts for use in PageStream & ProPage & WB2 \$35 • **GTS CGFONTS** 9-pack - 75 PS fonts for \$36 • **GTS Structured EPS** ClipArt 3-pack \$12 • **New Bit-mapped Font** 5 pack \$15

GAME PACKS

4 Games MegaPacks of 10 disks each (\$30) with all the latest and greatest games, easy to use.

NEW!! EDUCATION PACKS

Young pack - 10 disks crammed with material for younger users \$30. **Older pack** - secondary \$30.

UTILITIES PACKS

Assembler setup environment 3-pack \$10 • New HCC C Compiler 3-pack - full setup \$10 • Home Business 10-pack \$30 • General Utilities 10-Pack \$30 • C Manual 5-pack \$15 - Complete

C manual • Workbench 2 5-pack \$15 • Icon 4-pack \$12 • Comms 4-pack \$12 - entry into communications • New WB2 BestOffFish 5-pack \$15

Licenceware - CLR, A/Nuts OctaMED Pro V4 \$85 • We have games, databases, Assembly compilers, typing tutors & more - see our catalogue for full details.

MEGADISC MAIL ORDER

5% off for subscribers! See Catalogue or MD for full range • Get free disks with all MD Mail orders, and free subscriptions for larger orders! • Ask about our range of printers, modems, GVP h/w, software and more!

NEW!! Hints & Tips Disk

Complete compilation of all the hints and tips on all past Megadiscs arranged by type, cross-referenced, easy to use and locate. This covers all aspects of Amiga use and contains indispensable info. For beginner or veteran. Price \$19.95 (\$13.95 for MD subscribers).

NEW!! 3 MD Articles Disks

Complete, easy-to-use compilation of all past MD articles (MD 1-30) on 3 disks. Beginner guide and fully cross-referenced. This 3-pack contains 360 articles! \$15 per disk, \$39 for all 3 (\$27 for subscribers).

NEW!! MD Extras disk - Get this with each MD issue - companion disk with all the PD mentioned or reviewed on the current MD. Saves hunting around for the PD mentioned. \$20 for 6 issues, \$12 for 3 issues, or \$5 individually.

*Send your subscriptions & orders to:
FREEPOST 80 • MegaDisc • PO Box 759 •
Crows Nest 2065. Or telephone (02) 959 3692 (all
hours) or Fax (02) 959 3525.
Contributions to MegaDisc of any kind are most
welcome - please call. We do not charge for
Postage and Packaging, and there are no hidden
extras in our prices. Orders are sent out within 24
hours. We also take BankCard, MasterCard and
Visa Orders by Phone/mail/ Fax.*

Cheapest networking for the Amiga anywhere!

PIKit is a hardware/software package exclusive to Megadisc which connects any two Amigas or Amiga to CDTV. Full access available in both directions - use both machines fully from either machine. This greatly expands the power of your Amigas and CDTV. Only a standard serial cable required and an external drive. RRP \$29.95.

Nic Wilson Utens

This new package contains the latest versions of all the utilities which have become famous in the Amiga world - NoVirus (was \$50), AddMen (was \$50), AutoCLI, TrackDos, NoErrors, Info and many more. Exclusive to Megadisc \$29.95.

The C64 Column

by Owen James

Did anyone notice? The C64 Column has just chalked up its third year in print. So where are the trumpets, streamers and dancing girls? I wonder that too, as I sit here alone wearing my home made party hat, drinking raspberry cordial and trying (unsuccessfully) to get a noise out of this whistle (ffffffffffff). It's a pathetic sight, but a proud moment nonetheless.

So what have we covered over the past three years (besides the bottom of a few bird cages)? Well, we've looked at the possibility of a 64 virus, told you how to increase the speed of BASIC, mourned the death of the C64 Console in the UK, examined the new 'Super C64' rumours, accepted some bouquets and scoffed at a few brickbats. But even three years later there's still a lot to be said, so without further ado it's on with the show.

For the past two years Entertainment Software has been busily producing and selling C64 software in Australia. Their latest catalogue includes a large range of games, adventures and compilations, one of the most noteworthy being their Mega Games Pack which contains a staggering 380 games for just \$39.95. They also have their own free newsletter containing details of the latest news and happenings in the world of Commodore.

For more information, call Entertainment Software on (065) 52 6991, or write to them at 21 Lawson Crescent, Taree NSW 2430.

MAIL

Datasette Dilemma

Kevin McCullough of Gympie QLD writes: "Dear Owen, I am writing to you to find out where to purchase either a datasette or a disk drive for my Commodore 64. Most of the software I own is on tape, with only a couple or so disks. Most of the datasettes I have are broken, and the one I am using now doesn't load the graphics of one game called *Championship Wrestling* correctly. I have tried to adjust the heads, and even tried using a program called *LoadMaster* to try to fix it, but the problem is still there."

OJ: The Datasette heads need regular cleaning and demagnetizing to stay in top form, but even then they do wear out to a point beyond easy repair. The only place I know of at the moment with C64 Datasettes is Code One Computer Services. They usually have them for about \$49.95. For more information, call or fax Code One on (047) 57 3982, or write to 29 Toulon Ave, Wentworth Falls NSW 2782.

A disk drive would be the ideal way to go, but it's very hard to find new ones in Australia at the moment. You would also need to transfer your Datasette programs over to disk, so you may need some kind of Freeze cartridge such as The Final Cartridge III or Action Replay Mk VI.

These allow you to load your

Datasette games, hit a button, and save them to disk. Of course you'll need access to a working Datasette in order to load the programs in the first place. The Action Replay Mk VI cartridge is also usually available from Code One for \$130.00. Call or fax them for more details.

Which 128 Wordprocessor?

Joshua Lowcock of North Richmond writes: "Dear Owen, I have used *GEOS 128 V2* for the best part of a year but find it unsatisfactory to my needs. The main problem is all the fiddling it takes to set up and use, thus I bought *Easyscript 64* off a friend and use it instead. This probably illustrates how hassled I was by *GEOS*.

"Anyway, *Easyscript* is a waste of the 80 column, more memory 128D I own and I would like some ideas of a suitable 128 wordprocessor. I really need to be able to print the majority of printer codes, superscript etc. I also need it to be able to number pages automatically, have headers, a spell checker and word count. These are necessities. If it had a thesaurus and the ability to print in columns it would be a great thrill.

"I use the 128 extensively for university work and thus require a good WP ASAP (if it could read IBM ASCII files it would be good). Any suggestion you could offer would be appreciated, as well as a supplier. If someone reading this would be willing to sell their copy could they contact me. Or if they want to swap for *GEOS 128 V2 + geoDEX* or buy my *GEOS* setup for about \$70 neg. In the meantime I'll stick with *Easyscript*, without 80 columns and no spell checker (see how my work suffers?).

"Don't suggest I buy a new computer. I cannot afford to upgrade just for a word processor. Some things I have had suggested are *The Fleet System*, *Paperclip 3*, *The Write Stuff 128*."

OJ: There are a few word processors I could suggest, but they are either no longer available in Australia, or are out of production altogether. The one that I'd be inclined to suggest is *Word Writer 6*. It offers headers, footers, spell

STOP!

...paying too much! For the lowest prices and the best service, there's only One!

Business Software

System 3	Accounting package	\$135.00
Day by Day	Life organiser	\$59.95
Superbase Pro V4	Best database!	\$282.00
GP-Fax	For Fax-Modems	\$130.00
Mailshot Plus	Mail list manager	\$69.00
DG Calc	Easy-to-use Spreadsheet	\$89.00
Home Accounts II	Home finance	\$149.00

Operate a business? Call to discuss your Amiga software needs.

Word Processing

Excellence plus Organize	Hot!	\$115.00
ProWrite V3.3	+UK Dictionary	\$116.00
Wordworth II	Feature packed!	\$280.00
QuickWrite	Budget priced WP	\$55.00

Utilities

Ami-Back 2.0	Hard drive backup	\$99.00
QuarterBack V5.0	HD backup	\$87.00
Disk Master II	Directory Utility	\$72.00
Flipside	Sideways printing	\$30.00
Mac-2-DOS	Read Mac Disks	\$135.00

Programming

Amos	Create games with ease!	\$79.95
Amos Professional	More power	\$165.00
Amos Compiler	For speed freaks	\$79.95
Visionary	Adventure creator	\$120.00
HiSoft BASIC	Fast and Powerful	\$185.00
Rx Tools	Get more out of Arexx	\$85.00

Hardware

Hand Scanner	Includes OCR!	\$399.00
AlphaScan Plus	256 grey scale	\$490.00
Vidi 12	Full colour digitiser!	\$280.00
Media Station	DigiView, Paint	\$395.00
Light Pen	Make drawing easy	\$99.00
Mice	Many available!	\$Call

Public Domain

A64 Package	Best C64 emulator	\$10.00
WB2 Enhancer	A MUST for WB2	\$6.00
CG Fonts	50 Fonts for PPage etc.	\$12.00

Call for a FREE Catalogue of AmigaNuts, Deja Vu, Public Domain, C64, Books, Printer Ribbons and more! Visa, MasterCard & Bankcard welcome. Call, Write or Fax your Order.



Telephone Orders/Enq
Mon-Sat 9:30am - 6pm

29 Toulon Avenue,
Wentworth Falls 2782
Tel/Fax (047) 57 3982

check, thesaurus, word count etc, but is for the 64 mode only. It does, however, provide an 80 column on-screen display. Logico usually has them in stock for approximately \$80.00. You can call them on (02) 558 1884. If anyone is interested in Joshua's offer of *GEOS* for \$70, write to him at 278 Terrace Rd, North Richmond NSW 2756 or call on (045) 79 6314 after 2pm on most weekdays.

For Sale

Scott Bevan of Greta NSW writes: "Dear Owen, I wondered if you happen to know if the two-disk version of *geoPublish* is in Australia yet. I am also selling *GEOS 2.0* for \$50 and I will throw *geoPD* disks One and Two in for free."

"Do you know of anyone with a copy of *GEOS V2.0 128* which they would like to sell? Also, a Commodore MPS 1250 printer for sale. Includes manual, power, serial cable. Any offer around \$115.00. Write to 38 Nelson St, Greta NSW 2334 or telephone (049) 38 7214."

OJ: I haven't heard of any more up to date versions of *geoPublish* being released, and I'm sceptical that we'll see any more *GEOS 64/128* products come out of GeoWorks (formerly Berkley Softworks). They're not producing any more copies of *GEOS 128* nor any 128-specific *GEOS* software, and many of their other lines have been dropped. However, it might just be your lucky day. See the above letter for a second-hand copy of *GEOS 128*.

GEOS Future

I've received a few enquiries recently about what *GEOS* products are still available. As mentioned above, all 128 lines are out of production, but there may be one or two retailers still with some limited stock. Code One (047) 57 3982 tells me they had the following available at the time of writing: *GEOS 64 V2* \$62.00, *GeoCalc 64* \$48.00, *GeoChart* \$48.00, *GeoFile 64* \$48.00, *GeoProgrammer* \$54.00, *GeoPublish* \$54.00. Some of these titles are now out of production, so it's a case of once it's gone, there will be no more.

For the sake of interest, GeoWorks is still very much alive as a company, but they are now concentrating on their impressive range of GeoWorks PC software for IBM compatibles.

And of course it's now time we had the obligatory 'whinge' letter, this month courtesy of DVS-D (better known to his mother as Paul Kuhnast):

64 Coverage ...

"Yo Mr 64, I'm catchin' a lot of bad vibes here from these C64ers. It's true that the C64 content is down to a minimum but compare the 64 with the Amiga. How does it weigh up? (Obvious).

"Now to that grump Nicholas 'Angry' Bronson, you're right that the magazine says Commodore AND Amiga, but remember it doesn't say Commodore AND C64. You're a minority in the world of computers.

"I own an A600HD and a C64 and I'm wondering if you've ever used a decent computer, because if you have then you'd realise why there's so much more Amiga content than C64."

OJ: I don't know about Nicholas, but I've used IBMs, Macs, Atari STs and, of course, Amigas all quite extensively, but I still have a lot of respect for the C64. Over the past ten years it's put more computers into homes than IBM or Apple could currently even hope to. Certainly, the C64 would appear to be on a downward slide, but there is still a great deal of enthusiasm for them amongst both die-hard fanatics and new owners.

As for being a minority, approximately 15 million C64s have been sold, and while I suspect many of these C64s now lie retired in backroom cupboards, it's still a lot more than the Amiga's three to four million. The simple fact is, there is now more activity in the Amiga market than the C64's, and after ten years that's hardly surprising.

That wraps up this edition of The C64 Column. As always, I'd love to hear from you. Send your comments, questions, suggestions and Hellos to The C64 Column, PO Box 288, Gladesville NSW 2111. I'll be back next month. □

HOT PD

by Daniel Rutter

Plenty of new stuff this month - so much that my intro can only be about this long!

Spaceballs Demo

The Amiga took the mantle from the C64 as the spectacular demo machine of choice, and the output of Amiga coding groups in this department is unsurpassed. But demos often tend to be a bit samey, and coders frequently produce efforts which, while technically brilliant, aren't actually very interesting.

Every now and then, though, something quite different comes along, and it has in the form of the Spaceballs/Skid Row coproduction (according to their text, it was Skid Row who got rid of all the clumsy bits).

It's yet another techno dance music demo, but the graphic effects are quite new, using vectors and blur animation in ways nobody's tried before, with spectacular results.

It won't run on the A3000 but is fine on the A1200 and any 68000 machine - well worth a look!

PCRestore

More and more people are transferring files between IBM and Amiga computers - sounds, pictures, animations, desktop publishing files. If your file is less than 720k in size you don't have a problem - whack it on a 720k disk on the IBM and any one of several packages on the Amiga will be able to read it. If it's around twice the size you can usually archive it down to fit onto a 720k disk using LH,A, ARJ or ZIP, all of which archives the Amiga can extract.

But if it's too big for that, and the Amiga in question doesn't have a HD disk drive - or if the file's too big even for 1.44Mb floppies - then you used to be stuck with null modem or standard modem links,

which are slow, clumsy and often impossible, if you're a long way apart and one or both computers doesn't have a modem.

But have no fear - *PCRestore* is here! *PCRestore* is a nifty little Amiga program which will read backup disks created with the MS-DOS Backup program from v3.3 to v5 of MS-DOS. Backup isn't much use for its official task - DOS 6's version is much improved - but for this purpose it's perfect. And you were about to spend \$800 on a Syquest cartridge drive!

SVXVOC

While we're on the subject of PC/Amiga interchange, *SVXVOC* is a suite of programs, two for the Amiga and one for the PC. You can only use them from the CLI, and they allow IBM users to convert Amiga samples to VOC format to play through SoundBlaster cards, and Amiga users to convert

sounds either way. Only mono so far, but works fine.

AmiSOX

And while we're on the subject of sound conversion, *Amiga Sound Exchange* (SOX) 3.1 is out, and is winsomely described as "the Swiss Army knife of sound processing tools. It doesn't do anything very well, but sooner or later it comes in very handy." The documentation goes on "SOX is really only usable day-to-day if you hide the wacky options with one-line shell scripts." This is not too difficult, since reams of such scripts are included for AMigaDOS or CSh shells. This release understands "raw" files in various binary formats, Sound Blaster.VOC files, IRCAM SoundFile files, SUN Sparcstation.au files, mutant DEC.au files, Apple/SGI AIFF files, Macintosh HCOM files, Sounder files, and Soundtool (DOS) files. It will also do sample manipulation - echoes, filtering, vibrato, reversing and mixing. Small it is not, and Workbench users might as well forget it, but that aside it's an excellent package.

Digital Illusions

Another big and impressive package is this \$US15 ShareWare offering, which is a sort of bonsai *Art Department Professional*. The freely distributable version is only the alpha version of the program and so is a pain to use, but it gives you the idea. This program will do all sorts of funky things to pictures - see the demo screenshots - but its biggest selling point is that you can use it to make animations, with any combination of effects applied frame by frame for some really amazing results.

It has some big drawbacks in this version - the file requester, for example, is the worst I have ever seen and it takes an inordinate time to save and load - but if you've got a meg or preferably more RAM and, for less painful operation, a hard drive, you might well find yourself spending the bucks for the newer version.

TutStone (Digital Illusions)



Amiga & C64 Marketplace

C64 SOFTWARE

SPECIAL OFFER - 4 disks packed with programs for the Commodore 64. Top PD utilities, Games, Word Processors & Disk Catalogue.

4 Disk Pack only \$15

Or write for free catalogue. For immediate delivery send cheque or money order to:

BRUNSWICK PUBLICATIONS
PO BOX 458
BONDI JUNCTION NSW 2022
Ph (02) 759 7343

MEMORY EXPANSION

PRICES at April 15th 1993

1MB x 1 - 80ns	6.00	SEAGATE 2.5" IDE
4x256 - 80ns	6.25	64 MB 16ms 32K
1MBx4 ZIP-70	26.00	85 MB 16ms 64K
1MBx4 ST COL-70	26.00	128 MB 16ms 64K
1MBx4 PAGE-70	26.00	209 MB 16ms 64K
1MBx8 - 80	49.00	SEAGATE 3.5" SCSI
4MBx8 - 80	205.00	248 MB 72ms 128K
4MBx32 - 60 - 64	268.00	452 MB 12ms 128K
4MBx32 - 70 - 72	225.00	
PCMCIA V2 - 1M	260.00	ROCTEC FLOPPY DRIVES
PCMCIA V2 - 2M	450.00	FD368 3.5" EXT 880K 116.00

Please phone for the latest prices. Sales tax 20%. Overnight delivery, credit cards welcome.

PELHAM PTY LTD

Tel: (02) 980 6988 Fax: (02) 980 6991
1st floor, 100 Yarrara Rd, Pennant Hills 2120.
PO Box 382, Pennant Hills 2120.

LOTTO SUPERSYSTEMS

Turn the odds your way & WIN!

LOTTO SUPERSYSTEMS is the SMART, CHEAP, EASY way to increase the odds of winning in Lotto games, such as Pools, Tattslotto etc. Playing Systems is the key in turning the odds your way, however regular Lottery Systems are too expensive for the average person to play consistently. Lotto Supersystems cuts the cost of regular system entries, while maintaining the winning edge. It allows you to play much larger and more practical and affordable systems.

PROGRAM FEATURES:

- * Computer Systems
- * Smarter number selection methods
- * User Friendly and Completely mouse driven
- * Quick Picks and Much more

NOTE: For Commodore AMIGA computers only.
(Including unexpanded AMIGA 500)

Please send me LOTTO SUPERSYSTEMS DISK
Send \$25 Cheque or Money Order to:

BIT MASTER SOFTWARE
PO BOX 84
TULLAMARINE Vic 3043

Name

Address

State Post Code

Note: Please Print

Dealer Directory

*This space only
costs \$100*

To advertise here contact
Ken Longshaw on
(02) 817 2509

ROD IRVING'S "BULK DISK PRICES"

"NO BRAND DISKS"

LIFETIME WARRANTY / BOX OF TEN DISKS

ALL DISKS INCLUDE ENVELOPES & WRITE PROTECTS

1 - 9 boxes	10+	50+	100+	500+
5 1/4" DS/DD	\$4.75	\$4.60	\$4.40	\$4.20
5 1/4" DS/DD	\$8.50	\$8.25	\$8.10	\$7.95
3 1/2" DS/DD	\$8.50	\$8.25	\$8.10	\$7.95
3 1/2" DS/DD	\$13.95	\$13.50	\$12.50	\$11.95

ROD IRVING ELECTRONICS

MELBOURNE: 48 A'Beckett St City. Ph: (03) 663 6151

OAKLEIGH: 240C Huntingdale Rd, Oakleigh. Ph: (03) 562 8939

NORTHCOTE: 425 High St, Northcote. Ph: (03) 489 8866

NEW STORE: BOX HILL: 1031 Maroondah Hwy. Ph: (03) 899 6033

SYDNEY: 74 Parramatta Rd, St. Leonards. Ph: (02) 519 3134

ADELAIDE: 241-243 Wright St, Adelaide. Ph: (08) 211 7200

MAIL ORDER: 56 Renner Rd, Clayton. Ph: 088 33 5757

DEALERS: BLUESTAR COMPUTERS:

MELBOURNE: 271 Maroondah Hwy, Ringwood. Ph: (03) 870 1800

SYDNEY: 115-117 Parramatta Rd, Concord. Ph: (02) 744 5426

FREE PACK & POST OVER \$100 & under 5Kg.

Amiga Public Domain Software

Over 5000 Disks to choose from

NO POSTAGE CHARGES

AUSTRALIA ONLY

(OVERSEAS ORDERS ADD \$10.00)

DISKS FROM \$2.50

All orders shipped within 24 hours of receipt. Send \$5.00 for 3 DISK CATALOGUE or \$19.95 for INTRODUCTORY PACK of 9 Disks which includes 3 Games Disks, 2 Utility Disks and Virus Program Disk & 3 Disk Catalogue. Catalogue upgraded free with orders

GAMES PACK 1 (WB1.3 ONLY)

10 Disks full of Games (over 50)

Plus Catalogue Disks

\$30.00

GAMES PACK 2 (WB2.0 ONLY)

10 Disks full of Games (over 45)

Plus Catalogue Disks

\$30.00

CMANUAL ON 12 DISKS \$34.95

INCLUDES SIX MANUALS, 40 CHAPTERS,

175 FULLY EXECUTABLE EXAMPLES COMPLETE
WITH SOURCE CODE. PLUS OTHER GOODIES.

17BIT, AMOS, FISH, AMAZ, AMICUS, FAUG, NZAUG, TBAG, AMIGOZ,
MUSIC & SOUND, APPLICATIONS, UTILITIES, ANIMATION, DEMOS,
GRAPHICS, SCOPE PLUS OTHERS. WE ALSO HAVE OUR OWN RANGE
OF OVER 600 DISKS ALL SELF BOOTING AND READY TO USE.

WE NOW STOCK

KDV (Kilda Virus) \$24.95

PowerPacker V4.0 \$39.95

PC-TASK \$64.95

AmigaNuts Licenceware

Deja Vu Licenceware

Amiga Public Domain Centre,

P.O. Box 435, St Agnes SA 5097

Phone (08) 396 2163 Fax (08) 263 1393

We Accept Bankcard, Mastercard and VisaCard

Scarlet

Amiga PD Software

PO Box 458

Doveton Vic 3177

(03) 793 3814

Phone for

Catalogue Disk

Open 9am - 10pm

The Clip Art Connection

PO Box 112, Hawks Nest NSW 2324

Tel: (049) 971 442 or (018) 490 220

Fax: (049) 971 442

We supply dedicated Clip Art for Amiga users.

All images are single files.

100+ images on every disk.

Hard copy printouts of images available.

Available on 3.5" or 5.25" disks.

Economical - \$4.00 to \$8.00.

Special Discount Offers.

Contact us for Full Details and
Preview Sheets

AMIGA GAMES PLAYERS

"ADVENTURERS & STRATEGY CLUB

DISK MAGAZINE[©]

No. 20 Available Now

1 DISK ISSUE \$5

STAR TREK FANS

"THE FINAL FRONTIER[©]

No. 4 Available Now

4 DISK ISSUE \$15

Enquiries Contact: GARY DELLAR

153 NEWCOMBE ST., PORTARLINGTON, VIC. 3223

PHONE: (03) 744 4824

PC Review
For the Home & Small Business User

No-nonsense, easy to understand
reviews and information.

Advertise here

for only

\$50

TWC update

Transmit With Chat is a two-way send and chat package I talked about some time ago. It allows you and a friend to hook up via modem and send messages to each other while pumping files both ways at once, and works quite well.

The current version, 2.05, incorporates faster file writing, protocol improvements, greater stability, greatly smaller code and lots of other things. TWC may not be distributed for profit, so you'll only find it on bulletin boards and at user groups - not much of a handicap since the only people who want it will already have modems.

MAX's 1.53

I talked about *MAX's BBS*, the great PD bulletin board package that lets any Amiga owner set up their own BBS, a couple of months ago. So I shan't repeat myself, since naturally you all buy every issue of ACAR. The current version of *MAX's* is 1.53, and adds a cou-

ple of bugfixes. If you're toying with the idea of starting a BBS, you could certainly do worse than check this package out - it's fully documented and quite widely used.

ARQ1.78

ARQ is one of those programs people see once and have to have. It replaces the fairly functional but dull AmigaDOS requesters - you know, "Please Insert Volume" and company - with much prettier centred requesters, which include better keyboard control and an individual animation for each type of requester, which plays away in a little box.

The current version has various bugfixes, a few new animations, better detection of the type of requester to make sure it gets the right animation, and several other minor improvements. Partly useful, partly frivolous, wholly desirable.

TUG

The month's dose of frivolity. TUG stands for *Totally Useless Game*. It's a rather funny text adventure game, not awfully well coded, which has you galloping around a house trying to find a way out. It comes with a text file which tells you how to finish, but it's recommended you don't read it unless you're SURE you're stuck. It gave me a few laughs.

CompDisk1.6

CompDisk is a WB2 only package for real time virtual partition disk compression - compressing data as it gets written to your hard disk (you can use it with floppy but I wouldn't if I were you) and decompressing it when it's read back. It works by making a giant file which the operating system thinks is a separate disk. This "disk" can be any size - you can have it exactly the size of a standard floppy if you like. If you're running a fast processor,

HARDWARE AMIGA P.D

In association with:

Strictly P.D of England

Ph: (06) 288 6946

Fax: (06) 299 1473

PO Box 3072

Weston Creek ACT 2611

GAMES:

G339 — Games Bonanza
G001 — All New Star Trek
G337 — Storyland II
G338 — No Mans Land
G310 — Survivor
G342 — Down Hill Challenge
G278 — Air Ace II
G363 — Raphaels Revenge
G362 — Galactic Food Fight
G292 — Sealance

MUSIC:

M103 — Megabyte Mixes
Digital Concerts

DEMOS:

D237 — Phenomena Demo
D089 — Star Trek Anim
D451 — Virtual Worlds
D423 — Walker Vs Amy
D185 — Elvira Activities
D436 — P.D. Anims
D112 — Stealthy II
Utilities:
U326 — Amigafox
U082 — Voices
U089 — Flexibase
U299 — Slideshow Maker
U079 — Electrocad

FISH T-BAG CLIP-ART 17 BIT VIRUS FREE

\$2.00 Catalogue Disk. Delivery service for ACT region.

Brand name blank diskettes for only \$1.00 each!!!

Orders dispatched same day!!!

PO Box 3072, Weston Creek ACT 2611.

Ph: (06) 288 6946 Fax: (06) 299 1473

Mon-Fri 4.30pm - 10pm Sat-Sun 9am - 7pm

Make your Amiga IBM compatible
Run MS-DOS Windows and CD-ROM
Golden Gate

386sx/25Mhz \$999

486slc/25Mhz inc. 2 Mb Ram \$1599

Fastest IBM Bridgeboard for A2000/3000/4000

ATonce-Plus
286-16Mhz IBM AT Emulator
Amiga 2000 and 500 **\$399**

CD-ROM External \$599

A500/2000/3000/4000

Supports CDTV, ISO 9660, Hi-Sierra, Mac HFS
audio CD's, MS-DOS via Bridgeboard

SCSI-IDE Hard Drives-Ram expansion-Printers
IBM Compatibles

Phone for our free pricelist on disk

Fonhof Computer Supplies
64 Cross Street, Baulkham Hills NSW 2153
Phone: (02) 639 7718 Fax: (02) 639 5995

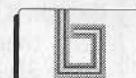


879 7455

Sydney Metro

Support · Orders

PR1ME
ARTIFAX



Ask about our new Disks of the Month CLUB...

Tracks 18 & 19

Our latest tracks disks are out - ready to play, or edit on your favourite Tracker! All you dance music enthusiasts out there Tracks 18 is for you! Because of it's size, "Rhythm" (a take of the Snap song) is the only track. Tracks 19 contains Bettyboo and Rockit - for all the old breakdance freaks. (You can easily use instruments in our Tracks disks to write your own song!)

**A600/1200
Make It Work!**

All you Amiga 1200 and 600 owners, there is a way to get programs to work which don't seem to want to! Simply boot this disk and choose the options you want. Reboot and your Amiga comes up with Workbench 1.3! So now most of the problems you had with running software, such as games, will be gone!

Term 3.3

Workbench 2.x users with a hard drive - this is the best FREEWARE terminal program on the market. Term has an excellent interface, powerful script language and phone-book support. (030 Version Included) Installation Script Included.

Three disks. Modem & WB 2.x required. Hard Disk Recommended.

Image Processing

A highly professional image processing program. Not only is it capable of processing still pictures, but also very stunning animations from flat pictures in a very powerful "in between" technique. Load any IFF files up to 1024 x 1024... if you have the memory. It also converts them to 24 bit for better quality. A huge number of features and tools make this one of the best around. (At least 1MB required, 2MB and a hard drive for animations.)

**Space BALLS
Music & Anim**

A FAB demo of dance graphics and technofunk. Impress your PC friends. Amaze yourself. See the Amiga shine. A must have - this is a TOP TEN DEMO. A500, 1200 and 2000 Compatible. 1MB Required. 1 Disk. NOT compatible with A3000 or accelerated A2000's.

**Hard Disk
Utilities #1**

Includes Hard Disk Backup program, ALock security, File Undelete, Azap disk editor, Bformat - automatically marks bad sectors out of use, Boot Logo, FindIt - locates files fast and HDMem - a Virtual Memory system. 1 Disk.

**Ask for our
FREE
Catalogue Disk
with the easy to
use Hyperbook
Interface.**

Anti-Virus PAK

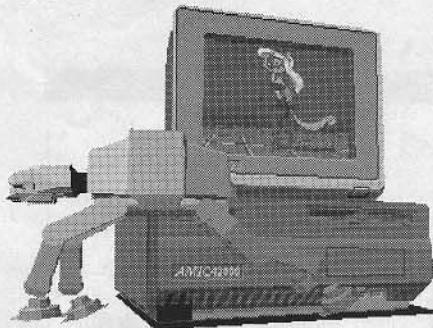
Make sure your disk collection is protected against Virus programs. Ensure you're prepared for the day you get a disk which is infected! On disk is BOOTX 5.3A, the most powerful software available on the Amiga today for detecting & removing Viruses. 1 Disk

**Pagestream
Enhancer**

Five disks in total, including three disks of Adobe Type 1 FONTS, one disk of Structured CLIP-ART, and one disk of New Drivers and Utilities. (Material sourced direct from U.S.A.)

Our disks are unique, compiled, tested & updated by us!

We guarantee Satisfaction! **PLUS** our amazing no fuss, no questions asked, replacement policy.



ALL Disks \$5

(Buy more than 1 and SAVE!
See disk prices below)

Support • Service • Range



008 252 879
ORDER HOTLINE
Outside Sydney Metro

Buy direct from us at the Sydney Computer Market, Sydney Town Hall. Sunday, June 27th 9-2pm

Are you looking for
a fast, powerful,
cheap word
processor?
**Protext 4.3 is now
available.**

Fully functional program,
packed with hundreds of
features including spell
checker, word count,
footnotes, anagrams and much
more. If you like the look of
Protext and need a full
manual, it's available for \$50.

Workbench 2.x FONTS

SIX disks containing
over 60 Compugraphic
fonts ready to install in
Workbench 2.x.

Use them in paint
programs, wordprocessors,
or any desktop publishing
software.

SHIPPING NOW
\$24.00

Do you use Workbench
2.x? Save time with the
new ToolManager utility.

Now you can launch any
application from a DOCK,
ICON, MENU or HOT KEY!
One program does it all. Comes
complete with ready to use Dock
icons. Object orientated
configuration system.

"It's the one we use..."

(One disk, Hard disk required)

DISK PRICES

All our disks are covered by one pricing
schedule. All prices includes postage,
packing and support.

Disks	Total Price	Cost/Disk
1	\$ 5.00	\$ 5.00
2	\$ 9.50	\$ 4.75
3	\$13.50	\$ 4.50
4	\$17.00	\$ 4.25
5	\$20.50	\$ 4.10
6	\$24.00	\$ 4.00

(for orders of 6 or more disks, each
additional disk is \$3.75)

We use quality Memorex
Brand diskettes.

Disks of the Month

How can you guarantee a constant
supply of quality, low cost software?
Easy!

Subscribe to our New Disks of the
Month offer, and we will send you a
fresh selection of the best new
programs for the month
automatically. You'll receive one or
two disks at a low cost of \$4/disk,
and we won't bill you until your
disks are despatched! CREDIT card
orders only.

NEW

PD Starter Pack

7 top
Disks

Special Price
\$21.00

The ideal way for first time public
domain software buyers to start
building a useful library of good
software. This pack is a collection of
our most popular easy to use titles.

- Hot Games 1 • Anti-Virus
Pack • Finance • Sound-Vision
Demo • Cartoon Animations 3
- Tracks 1 • Hot Games 4



Guaranteed
satisfaction or your
money back.

ORDER FORM - Post to Prime Artifax, P.O. Box 288, Gladesville 2111

June ACAR

Name

Address

.....

Post Code

Day Phone

Card No.

Valid To\n/..... Visa B/C M/C COD Cheque

Signature

Public Domain Disks

Please bill me each month for your
NEW disk/s of the month offer :

to v2.5, which adds the usual piles of bugfixes as well as PopCLI optionally bringing the Workbench screen to the front, KS3 compatibility, Snap compatibility, auto window activation delay so 68000 machines don't fall asleep when you move the pointer over lots of windows and several other minor changes.

And it still has all its old features - mouse acceleration, mouse and screen blanking, click to front/back, SunMouse window activation, auto window activation after flicking screens, drive click disabling, #?/* toggling for CLI and the ability to completely disable DisplayBeep - the DOS function used by some programmers to make the user's life a misery with excessive screen flashes and audio effects. But you do need WB2 to run it.

SuperDark

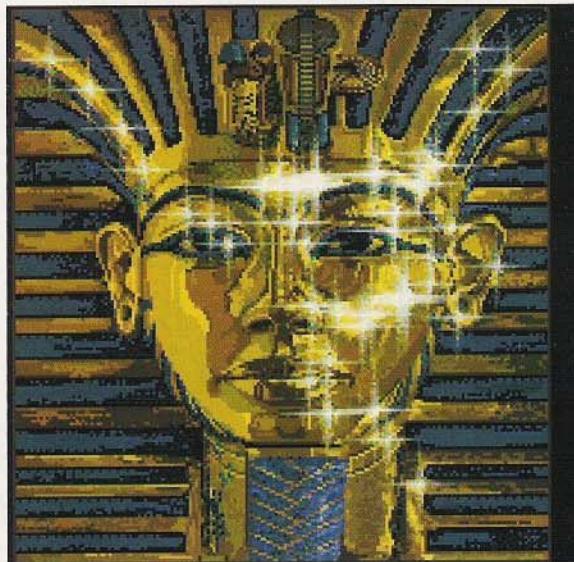
Just last month I mentioned *SuperDark*, a suite of screen blanking utilities not unlike *After Dark* on the Macintosh, only lumpier. Well, it's been greatly updated and is now considerably less likely to blank your screen to death, and so it's on the companion disk. Some new stuff has been added, a lot of bugs removed, but it's still not too quick on 68000. What do I care, I just got me an 030!

DellInfo

This simple little utility's sole aim in life is the removal of icon files (filename.info files) from anywhere you don't want them. The latest version, v1.1, adds a little and removes a couple of bugs. Tiny but useful.

DeliTracker

IntuiTracker is the old faithful program used by anybody who wants music while they compute - it'll play *SoundTracker* module on the workbench. *DeliTracker* does the same sort of thing, but with multi module format support and a different interface. There are a couple of formats that still baffle



TutPolis (Digital Illusions)

DeliTracker, but with both the *Deli* and *Intui* version you should be right. You can find the latest version of *IntuiTracker* on my HotPD 7 companion disk set.

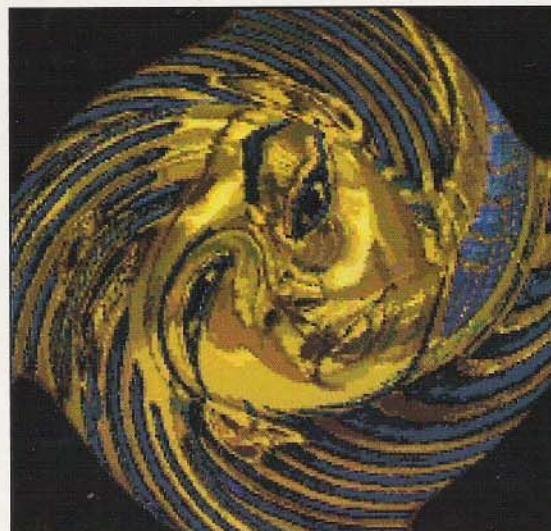
SysInfo

SysInfo is one of those programs that gets updated every second day. The current version is 3.15, and fixes the clock detection bug. Minor, but it's on the companion disk.

Fish

Fred Fish's invaluable AmigaLibDisk

TutTwist (Digital Illusions)



series has now reached disk 820. Here are some highlights from the latest 10 disks:

Disk 811 contains *bsh*, another monster shell cum scripting language like *Csh* and *Ksh*. *bsh* will run on DOS 1.x to 2.x, and offers command history, command line editing, command substitution, redirection and piping, redirection of standard error file, concurrent piping for external commands, here documents, aliases, filename completion using wildcards ('*', '?'), pattern permutations, variables, array variables, local and environment variables, variable exporting, C-like expression evaluation, conditionals, looping, more than 50 built in commands,

more than 40 built in functions, script programming, workbench startup via newbsh, directory aliases, shell window manipulation and command search by CLI path, by bsh path variable, command hashing and resident command loading. Got that? Good. It's shareware.

Also on **Disk 811** is *WhiteLion*, a new *Othello* (Reversi) playing program. As usual it beats the pants off me, but it's one of the best efforts in this field I've seen, and is a great program for learning the game. ShareWare.

Disk 813 has *AmigaBase1.21*, a hierarchical, programmable, in-core database that runs under OS 1.3 and OS 2.0. Features include two display methods, filter datasets, search datasets, print datasets, and much more. Datatypes can be Integer, Real, Boolean, String, Memo (Text), Date and Time. Number of datasets is only limited by available memory. Since it's programmable, you can build just about any kind of database with it, and some examples are included to start you off; it's great to see such quality software in the ShareWare market.

Disk 814 features *TreeGrow*, a pointless but fun program which generates quasi-fractal trees or plants. I like these sorts of programs - they're soothing, some-

POWERCOPY

PROFESSIONAL



POWER
PERIPHERALS PTY LTD

THE ONLY UTILITY YOU WILL NEED FOR EFFECTIVE DISK DUPLICATION ON YOUR AMIGA

- Fully featured software includes powerful picture grabbing options and virus detection/repair of known and unknown bootblock viruses.
- Hi-tech Power Device hardware ensures precise data duplication.
- Comprehensive online help files and individual help windows for all selectable options.

For more information contact Power Peripherals at
1ST FLOOR, 257 HAWTHORN ROAD, CAULFIELD NORTH, VICTORIA. 3161
PHONE: (03) 532 8553 FAX: (03) 532 8556

how. Hours of fun await, as you play with branches, leaves and flowers and discover that nobody with a machine slower than a 4000 should attempt a 20 generation plant.

Disk 815 contains *AntiCicloVir*, a link virus detector - link viruses infect files, not bootblocks - that detects 27 different viruses. Checks your disk and memory for known linkviruses, and can also detect some bootblock viruses in memory. Shareware.

Disk 817 has *EditKeys*, a keymap editor which supports editing of string, dead and modifiable keys, as well as control of repeatable and capsable status of each key. *EditKeys* runs equally well under AmigaDOS 1.3 or 2.0, and allows anybody to set up funny key macros, simple menu systems, or indeed to go all Dvorak should the urge strike them.

Disk 818 contains *LoadLibrary*, (yet) another LoadLib program, which allows you to load libraries from funny places without copying tons of seldom-used

stuff into LIBS:, and also allows you to RELIABLY kick unused libraries out of RAM to free space. This version runs in its own task, and uses the reqtools.library for multiselection and other user friendly file handling. *LoadLibrary* requires WB2.

Also on **818** is *WatchStack*, a program that monitors the stack of any selected task or process 50 or 60 times per second and reports the allocated stack, maximum stack usage and current stack used. Requires WB2, and is another little help in tracking down those incompetently built programs that live to stuff up your system.

Disk 819 contains *MemoMaster*, a program that warns you about events (like birthdays and anniversaries) as they approach. Simple, eh!

Disk 820 has *QuickFile*, a shareware flexible, fast and easy to use flat file database using random access with intelligent buffering to minimise disk access, multiple indexes for fast access to records, form and list style screens and

reports, and fast sorting and searching. Files are quickly and easily defined, and fields can be added, changed, or deleted at any time. If you don't need super power, *QuickFile* could be perfect for you.

IDIOT ALERT

That's right kids, another moron with a hex editor has released a fake "update" to a program. Poor old Eddy Carroll, author of the invaluable *SnoopDOS*, has once again had his work hijacked for some nong's entertainment - if you find something which purports to be *SnoopDOS 2.0*, ignore it. Nobody knows what THIS version does, but it isn't anything useful.

Everything mentioned here except *MAX*'s, the Fish disks and the stuff that can't be distributed for profit is on the companion disks, available from Prime Artifax PD as Hot PD 9a and 9b. The disks are fully iconned, except for programs that don't run from Workbench.

See you next month. □

AMIGANUTS UNITED AUSTRALIA
P.O BOX 9001, WILSONTON, QLD 4350
Phone (076) 331172 Fax (076) 331172
Founders of The Public Domain Association of Australia
GUARANTEED SERVICE & SUPPORT

HardWare & Accessories
licenceWare Programs
Public Domain Programs
Computer Training & Tuition
DeskTop Publishing Service

©OctaMED ProV4.03 \$85.00

The best budget priced music software available! OctaMED can utilise upto 8 tracks using Amiga hardware, 16 if used with MIDI. Built in sampling software.



©AMFC V2.0 \$28.00

Amiga Music File Converter, allows modules from other trackers to be converted into OctaMED format, including SMUS.

©AMIGA CODERS CLUB (ACC)

ALL ACC DISKS NOW ONLY \$9.00 each. Monthly programming disk for assembly language programmers of all levels, contains loads of source, tutorials, hints & tips.

PUBLIC DOMAIN SOFTWARE

Assassins games collection 42 disks of games. \$3.50 ea
OctaMED Modules 14 disk set \$42.00
OctaMED Samples 8 disk set \$24.00
We stock the entire Fred Fish collection over 800 disks.
Australian Distributors for the famous TBAG disks.

NEW SERVICE AVAILABLE
PICK - A - DISK
CALL OR WRITE FOR DETAILS

HC Software Pty Ltd.

Australian Graphic Atlas V3.5 WITH RUNTIME NOW RELEASED!

This new version of the atlas now has even more features. Display of maps, wildlife, explorers, Antarctica, Prime Ministers and much more! Normally \$89.95

SEE US AT
THE WORLD
OF COMMODORE SHOW
and get the Atlas for just
\$50.00

NEW!
EXPANSION MODULES
now with runtime!
Demographics \$59.95
(Show Price Just \$40.00)

HC SOFTWARE PTY LTD
PO Box 782, Prospect East
South Australia 5082
Phone (08) 262 4461
Fax (08) 262 8229

**AUTHORIZED
COMMODORE SERVICE
COMPUTER**

ALL COMMODORE & AMIGA
WARRANTY and
NON-WARRANTY REPAIRS

- * Module Exchange
- * Upgrades & Modifications
- * Workshop Repairs
- * 90 Day Warranty
- * Quick Turn Around

PLEASE CALL FOR CURRENT
PRICES and
LABOUR CHARGES

PARCOM Pty Ltd

Whites Hill Shopping Village
Samuel St, Camp Hill, Qld 4152
(07) 395 2211
Brisbane North Side
5 Clifford St, Stafford Qld 4053
(07) 857 6311

Phil Campbell's Mindscape Entertainment

EA Releases A1200 Zool

The floodgates are opening as a new range of software designed specifically for the 256 colour Amiga 1200 pours onto the market ... well, not quite. But at least there's a trickle!

Electronic Arts are first, with a specially upgraded version of the phenomenal *Zool*, the best ever platforms-n-ladders game ever to grace the Amiga. I'm waiting for my turn on ACAR's Amiga 1200 to try it out!

Playcorp Takes Over Mindscape Distribution

Sydney's Mindscape, longtime supporters of ACAR with the monthly Mindscape competition, are to cease operation. Mindscape International and Software Toolworks products will now be distributed through Melbourne's diversified Playcorp organisation.

Playcorp spokesman Mr Sam Stewart, a keen Amiga enthusiast, promises solid Amiga support from the company. "We've already developed strong credentials in the console market," said Mr Stewart, "and intend to do the same in the computer arena." You can contact Playcorp on (03) 329 2999, or fax (03) 329 2995.

Mindscape's Sydney office will still be open for "technical and marketing solutions."

See you at the Show

Yes folks, it's just about World Of Commodore time again. We'll all be there on the ACAR stand ready to chat, and flogging off hurriedly made copies of the ever popular ACAR Entertainment Hints Disks. Mind you, if you'd like to beat the rush you can order yours right now - see the details below.

New Screenshot Technology for ACAR

Keen eyed readers will notice some improvements in our screenshots over the next few months. Thanks to Don Quixote Software, we're now using an Action Replay III cartridge to capture screens from "freezable" games - which includes all the titles reviewed this month. Many games, however, use fancy "copper-list" programming to create gleaming colour-barred backdrops. And sprites usually drop out of the cap-

King's Quest V Solution, see page 74



tured screens. So from next month you'll notice live "video grabs" of game screens, courtesy of a VIDI 12 Frame Grabber from Mark King's Amadeus Computers, phone (02) 652 2712. Video grabs suffer from a little blur, but you should find they give a better overall view of the action.

Last Ever Mindscape Competition Results

Sad to say, the Mindscape April Competition is our last! So here's to our final clever - and lucky - winners of *Nigel Mansell's Grand Prix*. We asked you to unscramble the words TTRPPIEECA and UTTRPONMIEA. Each of them can form two perfectly normal English words. I suspect the winners had access to an Anagram dictionary, because they didn't seem to have much trouble coming up with peripatetic, precipitate, impudent, and permutation.

First prize goes to Joe Hanna-Rivero of Keilor Downs Vic, who had the good sense to notice the clue! Second prize to Jeannine Clegg Heathridge WA, and third to H Turnbull of Teralba NSW.

New ACAR Adventure Hint Disk

Speaking of Hints, Adventurer's Realm have now produced their very own disk full of hints and tips for Adventurers. You'll find the details safely tucked away in this month's Realm.

And the Ever Popular Hint Disks 1 and 2

If you still haven't ordered your copy of the fabulous ACAR Hint Disks 1 and 2, why not do it now? This month, we're offering a World Of Commodore Special - send two blank disks, a stamped, self addressed envelope, and a cheque for \$8 to Phil Campbell, PO Box 23 Maclean NSW 2463, and we'll send you both disks crammed with hints, tips and other goodies. That's a huge 20% saving for this month only.

ENTERTAINMENT HINTS & TIPS

Gravity Force

These handy level codes come from Brendan Tregear.

Level 5 - AGNUS
Level 10- PARSEC
Level 15- CRYSTAL
Level 20- REACTOR
Level 25- VISION
Level 30- ORBIT
Level 35- PALACE
Level 40- ALIEN
Level 45- FALCON

Also if you want to get to any level, type in WARPXX where XX is the level number.

Zool

Thanks to Daniel Cannon for this

handy Zool hint:

On the screen with the little Zool and the instruction to press the fire button, type GOLDFISH. Now in the game, press 1 for invincibility, 2 for next section, 3 for next world and 4 to lose a life.

Armour Geddon

Last month we printed Part 1 of Jim Darcy's detailed guide to totally stuffing up *Armour Geddon* with your Action Replay Cartridge. Here comes part 2!

Altering the Developed Status of a Vehicle or Weapon

Again, says Jim, you'll need to use the "M (address)" command to alter these locations. Alter the two bytes at each of these locations to \$FFFC to make a vehicle or weapon developed.

Vehicle or Weapon	Status Location	*
Heavy Tanks	\$02af0c	*
Light Tanks	\$02af62	*
Hovercrafts	\$02afb8	*
Bombers	\$02b00e	*
Fighters	\$02b064	*
Helicopters	\$02b0ba	*
Lasers	\$02b110	*
Bombs	\$02b166	*
Rockets	\$02b1bc	*
Missiles	\$02b212	*
Neutron Bombs	\$02b268	*

Retd. Bombs	\$02b2be	*
Night Sights	\$02b314	*
Shells	\$02b36a	*
Drop Tanks	\$02b3c0	*
Telepods	\$02b416	*
Fuelpods	\$02b46c	*
Cloakers	\$02b4c2	*

The above locations are only for training mode off, as in training mode on the vehicles and weapons are all developed.

Infinite Vehicles and Weapons

The following instruction (located at \$130b6) decrements your vehicles and weapons in the base.

\$130b6 sub.w d0,1c(a0)

Disable this instruction, and every time you use a vehicle/weapon, you will still have the original number of vehicles/weapons remaining.

If you click on a vehicle/weapon, and then put it back, you will find that you now have an extra one. To disable this instruction, use the "A (address)" command, and assemble NOP instructions over the top of it.

eg. type "A \$130b6" (enter)

now type NOP (enter) - do this line twice to erase the old instruction. This is a little bit harder than using the trainer "TFD (address)" command, but it is so much quicker that it is worth the extra effort.

Entertainment Letters.

Send your entertainment letters to the editor, Phil Campbell, PO Box 23 Maclean NSW 2463, Australia. Keep them brief and to the point, and we'll do our best to help.

Swap Shop

Dear Phil, I am after the game *Street Rod I* or *II*. I will swap it for *Turbo*

Trax, *Warhead*, *Full Metal Planet*, *Nightdawn*, *Grand Monster Slam*, *Purple Saturn Day*, *Football Sim*, *Volleyball Sim* or the *Power Pack*. Thank you.

Andrew Politsch
Mount Isa, Qld

Ed: Hope you'll find a reader somewhere who can help. You'll enjoy *Street Rod* - it's a nice little racing game, though hard to survive in!

Complaints Department

Dear Phil, I am writing to warn people about the Sierra Club, run by Sega Ozisoft. It seems to be a fake. I've waited three months for a newsletter, and received nothing. I rang the hint line and found it was disconnected.

I would also like to complain about Prime Artifax. They are very slow in delivering. I ordered a catalogue from them two months ago and have still

received nothing. I would also like AMOS programmers to write to me for I want to start an AMOS club. It will consist of disk costing around \$5. This money will be distributed to the writers and so on. Keep up the good work.

Myle Agnew
50 Eugenie St
Raglan, NSW, 2795

Ed: Gee, Myle, you're having a bad run! Have you remembered to include your address when you've contacted Sega-Ozisoft and Prime Artifax? They're both highly reputable companies! If you still haven't had any success by the time you read this, contact our office by phone and we'll put in a good word for you with both companies. As for your Amos Club, are you sure you can offer anything more than the "official" Amos club run by Pactronics?

Sports Report

Dear Phil, I own an Amiga 500 and am heavily into sports sims. I was disappointed in *ET's Rugby League* in one aspect of the game. That was it doesn't have statistics like highest point scorer and such. Could they possibly do something in the future to enhance these features?

Harold Banfield
Sanctuary Point, NSW

Ed: Sorry, Mr Banfield, I think there's very little chance that *ET's Rugby League* will be re-released with a beefed up stats section. Nice to know that there are some players out there who take notice of all the statistical garbage that some sport sims like to pump out - as for me, I just ignore it!

Cheat

Dear Phil, I was hoping you could help me with some cheats for games - though not cartridge cheats, 'cause I haven't got one. I'm after some help with *Nuclear War*, *Ports of Call*, *Global Effect*, *Fire Power* and *Wings*. Thanks for the help.

P Kuhnast
Humpstead Gardens, SA

Ed: There's plenty of help available for most of those games on our official ACAR Hints Disks - *Ports of Call* and *Wings* have been particularly well covered. If you've got any back issues of ACAR, check them out - otherwise, see details for ordering hint disks on the News page.

Test Drive II Wanted

Dear Phil, Somehow I've trashed disk 1 of *Test Drive - The Duel*. Sega-Ozisoft can't replace it. I was wondering if any readers could provide me with the original disk, or a copy. I'm prepared to swap for an original *Jimmy White's Snooker* or *AMOS - The Creator*. If anyone can help, please contact me direct.

Mark Curran
5 Landra Ave
Mt Colah 2079
ph (02) 987 4606

Ed: Sorry to hear about your accidental disk-trashing, Mark. Hopefully some compassionate reader will get in touch with you direct!



EDD THE DUCK 5,820 Andrew Gormly	SKWEEK 3,375,400 Faye Doherty	CREATURES 10,123 Adam Malinowski
ELIMINATOR 246,570 G Munro	SPACE ACE 24,680 Stare Bear	DAVID'S MID MAGIC 669,150
EMERALD MINE Level 23 (d)	SPACE HARRIER 210,855,250	The Joker
Timothy Johnson	Maverick	DOUBLE DRAGON 35,820 (c)
FIRE & ICE 376,750 The Prophet	SPEEDBALL 17,650 A Burbidge	Atul Prasad
FINAL FIGHT (C) LOOPY	SPEEDBALL 2 488-0 Matt James	DOUBLE DRAGON II 255,190
FLOOD 13,135 Matthew Beetson	STARWARS 5,722,822 wave 33	Nick van Heeswyk
GAUNTLET III 270,509 LOOPY	C. Mungos	DRAGON BREED 496,870 Happy
GEE BEE AIR RALLY 308,726	STRIDER 175,350 Neil Young	Hacker
Robert Irwin	SUPER CARS 27 races (c)	FAST BREAK 136 to 9 C Byrne
GIANA SISTERS 112,480 A Annen	L.Hetherington	GHOSTS AND GOBLINS 325,600
GODS 13,501,379 (c) WIZE OWL	SUPER CARS II Hard Level '42	Adam Wade
GOLDEN AXE 499,9(c) The Untouchable	The Untouchable	GHOULS AND GHOSTS 558,110
HYBRIS 2,934,426 Andy Tyson	SUPER HANG-ON 25,042,850	(c) Adam Wade
IK+ 1,039,200(c)Powerhouse Nick	David Worthy	GIANA SISTERS 287,100(c)
IMPOSSIBLE MISSION 66,380	SUPER OFF-ROAD \$4,930,000	Adam Wade
Diane Unwin	Greg Hingerty	GRYZOR 228,600 Mean Max
IMPOSSIBLE MISSION II 67,900(c) David Dilkes	SUPER WONDER-BOY 208,900	H MARADONA Lv M Heeswyk
INDIANA JONES L.C. completed	SUPER SPACE INVADERS 814,355 Andrew Hay	HAWKEYE 260,400 M Inman
Phillip Nicoll	SWIV(H) 2,108,210(c)R Adams	IKARI WARRIORS 308,300 Jason Aldridge
INDIANAPOLIS 500 37.00sec/	SWIV (J) 2,417,330 S McKinlay	IMPOSSIBLE MISSION II 76975
243.24mph Ian Klaus	SWORD OF SODAN 403,500	INT. KARATE 139,300 P Millward
INERTIA DRIVE 33,600(c) A. Gormly	STEVEN Begley	LAST NINJA II 17m44s D Carter
JAMES POND 2,500,000 Mark Shillington	T E N . M . N . T U R T L E S 546,600(c)James Leeken	MIDNIGHT RESISTANCE 28,540
KARATE KID II 54,000 M Summers	TEENAGE QUEEN - \$3900 (c)	(c) Dennis Pike
KILLING GAME SHOW 699270	Ronald Biggs	MEGA GIANA SISTERS 328,746 Mean Max
David Thompson	TERMINATOR II 254,960 P Rucci	NEMESIS 1,633,200 Adam Wade
KLAX 4,396,040 Happy Hacker	TEST DV 237,308 S Demchinsky	OPERATION THUNDERBOLT 78,600 Adam Annen
LEATHERNECK 88,700 T Humphries	TEST DRIVE 2 659,992 Michael Summers	OPERATION WOLF 776,350
LIVE AND LET DIE 96,520	TETRIS 65,300 (1417 Lines) Ray 'THE LEGEND' Brown	Winston Diaz
Merekeet Beaton	TETRIX Level 232 Stephen Lark	OUTRUN 19,952,780(c) The Untouchable
MAJOR MOTION 50,658 Owen Webster	THE RUNNING MAN 123,500	PARADROID 303,125 M Inman
MENACE 996,481Kamikaze Andy MIDNIGHT RESISTANCE 322,610 Chris McInally	Daniel Rucci	PAPERBOY 103,100 J Nunes
NUCLEAR WAR 990 Paul Rucci	THUNDERBLADE 2,034,040 De Moose	PIRATES 143/100 D Steward
ONSLAUGHT 39,918 A Gormly	THUNDRCT 522,300 S Southurst	POWERDRIFT 872,940 A Annen
OPERATION THUNDERBOLT 166,400 Andrew Gormly	TOWER OF BABEL 25,934	QUE-DEX 639 Chris Byrne
OPERATION WOLF 355,680	(c)Stephen Lark	R-TYPE 1,890,210 Atul Prasad
PHIL CARY	TOKI 115,963 (C) Loopy	RAINBOW ISLANDS 7,653,241
AXEL'S MAGIC HAMMER 329,800 Aaron Buscumb	TURBO OUTRUN 100,260,819	Adam Malinowski
BAAL 134,250 Davo	Matthew Mantle	RAMPAGE 180,000 Adam Wade
BARBARIAN II 100% (c) - Sid Vicious	TURRICAN 1,735,100 (c) Adrian Annen	RICK DANGEROUS 66,280 Adam
BATTLE COMMAND 334,200 Peter Cain	Jenkin	ROBOPOL 237,170(c) A Wade
BATTLE SQUADRON 99,999,999	THELEW Beeton	ROLLING THUNDER 417,280
(c) Amos Burbidge	TV-SPORTS BASKETBALL 192-	Adam Wade
BEYOND ICE PAL. 67,626 (c)	39 Matt James	SALAMANDR 235,300 P Millward
Chris Turnadge	TV-SPORTS FOOTBALL 189-0	SHINOBI 664,372(c) W Diaz
BIO CHALLENGE 29,000 Aaron Sanderson	David McKinney	SILKWORM (Hel) 1,212,200 (c)
BLOCKOUT 85,281 Stephen Lark	TWINWORLD 24,640 Carol Love	Rick Zanker
BLUES BROTHERS (C) LOOPY	TYPOHUN 54,255 O Webster	ADAM BLANCH
BOMBJACK 468,120 K Butters	U.N.SQUADRON 762,255 (c)	SKATE OR DIE Freestyle 22,850
BUBBLE + 276,850 (c) T Toyne	Tony Stojanouski	The Joker
BUBBLE BOBBLE 2,960,980	VIDEO KID 371,050 Andrew Hay	STREET FIGHTER(c) 168,900
Kristy Cameron	VIRUS 22,637 Jason Dykstra	Adam Wade
BUDOKO 808min (c) Mark Sorensen	WHIRLIGIG 28,210 Nathan Allen	SUPER CYCLE 239,840 (c) Adam Annen
BUGGY BOY 113,260 Powerhouse Nick	WINGS 432 kills Robert Irwin	TARGET RENEGADE 330,450
CAR-VUP 484,122 Happy Hacker	WONDER BOY 381,186,042(c)	C. Byrne (clocked)
CHASE HQ 7,426,060 Powerhouse Nick	Kristy Cameron	TEST DRIVE 36,144(c) John Nunes
CONT. CIRCUS 4,815,390 Dolly CRAZY CARS 93,622,590(c)	XENON II 1,107,280 Mark Porta	TEST DRIVE II 249,543 (c) A Batroc
Robert Cameron	ZOOM 67,051 Steve Jones	TETRIS 81,613 (1021) The Fly
CRAZY CARS CHALL 3,000,000!! Michael Summers	ALLEY CAT 1,101,150 S Mitchell	THE TRAIN 9,500(c) Adam Annen
CRYSTAL HAMMER 6,787,921(c)	ALTERED BEAST 312,400 Rick Zanker	THUNDERBLADE 1,851,040
Kristy Cameron	ARKANOID 1,730,400 Segey Kandaurov	THUNDERCATS 310,100 Sergey Kandaurov
CYBERBALL 475,000 D Marsh	ARKANOID 2 756,250 Mean Max	T.M.N TURTLES 4397 Adam Annen
DENARIS 53,900 Peter Evans	BARBARIAN II 80500 UNKNOWN	TRAZ 112,400 Segey Kandaurov
DIABLO 1,490 Timothy Johnson	BATMAN 521,360 The Joker	TURRICAN 1,239,040 Adam Malinowski
DRAGON NINJA 406,400 (c) WIZE OWL	BATMAN-THE MOVIE 1,087,080 Michael Bradley	UNTOUCHABLES 70,230
DOUBLE DRAGON 962,355	ROBOCOP 450,890 (c) Wize Owl	Simon Watford
Robert Cameron	ROTOX 183,050(c) Faye Doherty	WIZBALL 999,999 (c) G. Beaven
DOUBLE DRAGON II 201,330(c)	SIDEWINDER 904,350 Sharon Eiseley-Eades	WONDERBOY 4,775,470 (c) Lee Walters
The Warrior	SILKWORM (Hel) 9,963,360 (c) Robert Cameron	CHASE HQ II 29,100 (C) A Wade
	SILKWORM (Jeep) 2,369,571 Kristy Cameron	CHASE HQ II 29,100 (C) A Wade

Scores followed by (c) indicate that the game has been completed.

KGB

So comrade, you want to know about an adventure game based in the Soviet Union, where you are an agent for the KGB? Let me tighten those thumbscrews as Laetone Gravolin investigates.

We all know times have changed. *KGB* intimidation is a thing of the past. But in *KGB* - the game - you play the role of Captain Maksim Mikhailovich Rukov (whew!), an agent who has just transferred from a military post in Siberia to Department P, a high-up section of the KGB in Moscow. His mission; to investigate cases of corruption inside the KGB itself.

Control is by a easy point and click interface - for instance if you put the pointer on a man the pointer icon will change to "talk". Click on the mouse button and a number of options will appear - "you say", "you ask about", "you talk about", "you ask for." Submenus let you choose your conversation topics from further options. Controlling objects on the screen is easier - if you point it at an object "take" will appear. One further click picks it up.

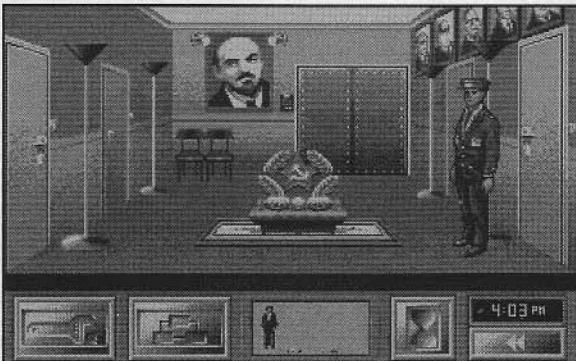
Gameplay is average - you go on a series of secret missions, through four chapters. The extent of the mission depends on the threat to the KGB. Put simply, if it affects the KGB the mission will be long and hard - if the outcome doesn't affect the KGB the mission will be short and easy. In general, you'll investigate deaths, apartments and other "James Bond" style stuff.

Of course the Soviet Union is very strict, if you go on a mission and find nothing the Major will transfer you back to Siberia in a very rude manner. And if you happen to accidentally pull your revolver out and aim it at the Colonel, it will be the end of the game. And your life.

In the headquarters, you have a very cramped office with a scrappy old type writer to write reports. There's a phone, and across the room the desks of the other agents you share the space with. Be careful what you say to them - in the KGB, everyone is always watching everyone else!

The graphics of this game are very good indeed. When someone talks to you, you will see a large animated picture of their face, which looks almost real. The sound is a little disappointing - a boring music track that seems to drag on and on. There are no sound effects at all!

If you feel you're not very good at this sort of game, don't worry. There's a very useful and unique backtrack mode! So if you get your ribs broken by a bunch of mean punks, backtrack to where you met them and say "You look very stunning, gentlemen" instead of "Why don't you take a walk, Mac."



FACTBOX

KGB is a well produced game with nice graphics, and a boring, Russian sounding music track. It's a classic point and click adventure, with plenty of depth, and a demanding plotline. Recommended if you feel like a challenge.

Ratings

Graphics:	90%
Sound:	67%
Gameplay:	85%
Overall:	83%

Distributed by Sega-Ozisoft. RRP \$49.95. Available from your retailer.

In your inventory there are useful items like your revolver, identification card, money and a family photo - and as you progress on missions you will find more items that help.

KGB is a difficult game. It expects you to be a professional when you start, and you'll have to think hard. If there are bad guys in the next room and you have to search the room next door and it's dark, remember to use a match instead of turning on the light - in other words, think like a spy!

This means the game can be darned frustrating at times. Depending on how you look at it, that may be a bonus - after all, you don't want to finish it in the first five minutes. Then again, I guess you DO want to finish it some time in the next five years. I'll let you know how I go!

Mark Harris checks out a game that's finally been re-released without those nasty bugs. So switch on your imagination and dive in boots and all, because you're sure to enjoy ...

FATE

Gates of Dawn

The delectable mix of atmosphere, storyline, battles (some epic) and presentation make this game a classic of classics which continues to fascinate me each time I play it. The player obtains important information during game play only by engaging the inhabitants and Mages in conversation. In time, he encounters numerous puzzles which must be solved.

Fate does not employ the often abused question and answer trick - each puzzle must be solved step by step before a new adventure can begin.

Winwood, the main character in *Fate*, is a man in the best years of his life and a proud owner of a record shop on Fifth Street. He is not well off, so has to stay open late hours. One day he feels tired and falls asleep. Winwood was in dreamland; suddenly he is drawn into a world of dark nightmares and sucked into gaping emptiness. He awakes to find himself in another land. In his dream he sees Thardan, and knows he was the evil mage that abducted him. Winwood just has to find answers to these questions if he wants to return to his own world. And he is very sure he wants to return!

So the stage is set for this epic adventure (with emphasis on epic). This game was released in 1991 but was beset with problems (crashing when entering the first town); a year later it was released again minus the initial problems.

The first thing that impressed me was that the game ships on only two disks and is hard drive installable. Don't be fooled by the fact it is only a two disk

game - it's crunched. I started playing it and am still playing it some months after receiving my copy. The interface is great, a combination of mouse and keyboard. The graphics are also excellent and this game was first released on the Amiga instead of the other way around (a big hurrah for the European software companies).

This is a true role-playing game, unlike some that have been dished up in the past. The experienced role-player will find this game to be truly exciting - it will certainly challenge your mind. Inventory management is a factor in this game, to be a true role-player you have to account for this (object weight, weapon weight etc) - after all you can't aspire to play be a role-player if you don't pay attention to detail.

The magic is broken up into 20 classes, each with 10 spells. Every mage can learn all the classes and spells. Attributes can be raised upon promotion along with the acquisition of new spells.

FACTBOX

Fate - Gates of Dawn is a classic Role Playing Game that has finally been released the way it always should have been. And what a game! Great graphics and a top notch story line in the best RPG traditions make it our reviewer's favourite game.

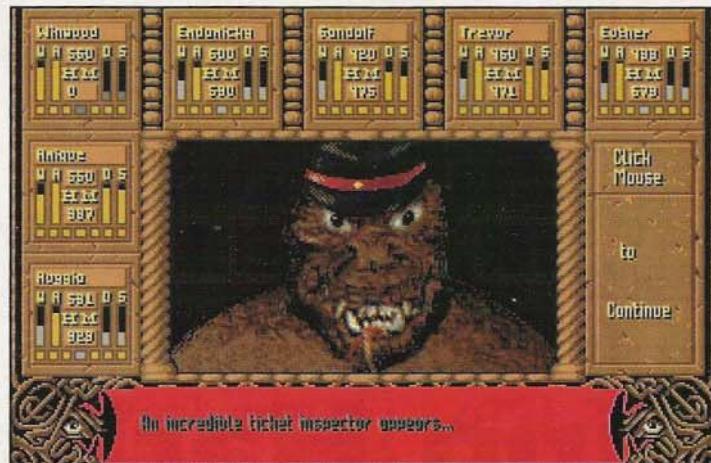
Ratings

Graphics	91%
Gameplay	95%
Playability	93%
Lastability	93%
Overall	94%

Distributed by Playcorp (03) 329 2999.

Almost every town has a dungeon of seven levels with sub levels which are an extension of each level; each floor has to be completely explored as they hold clues, and useful weapons can be found. The first object of this game is to open the cave-train and this is achieved by killing Miras Athran.

Enough of the clues, in closing I will say this - I have found and continue to find great enjoyment in this game and if you are dwelling on the fringe of becoming a role-player take up the challenge and play *Fate*, you will not be disappointed. I would never give a game 100% but *Fate* has come the closest to my perfect score!



SEE YOU AT THE



It's on again! Australia's most exciting computer show - with something for every computer user from the beginner through to the professional.

It's the 1993 World of Commodore. It was a huge hit in New York. It wowed them in London. And now it's coming to Sydney's Darling Harbour Exhibition Centre for three days only.

Don't miss any of the action. Mark the 1993 World of Commodore on your calendar now. 10AM to 6pm, July 2nd, 3rd and 4th ONLY!!

- Over 70 leading exhibitors from around the world!
- Exhibitors including ICD, OpalVision, GVP, Scala
- Arrexx Cook Book and many more
- See the latest applications - get the tips from the experts
- Dealers including Brash's & Harvey Norman!



PLUS!

Virtually continuous FREE* seminars over the entire three days. Industry leaders explain how it's done!

PLUS!

See the Real Geniuses in action: the Australian Finals, then the International Finals LIVE and only at World of Commodore! Who is the World Real Genius?

PLUS!

Loads of software and hardware at unbelievable prices. You'll kick yourself if you miss out!

AND SO MUCH MORE!

Darling Harbour, Sydney

Telephone enquiries: Call Sydney (02) 906 5088



world of commodore



SEE the release of the
new **MYSTERY** Amiga

SEE the release of the
all-new OpalVision range

OpalVision

Seeing is Believing
Video Processor, Roaster Chip
Video Suite

OpalVision

Seeing is Believing

SCALA
Why make it harder?



ACN 008 268 595

► VISIT the all-new **MULTIMEDIA**
environment featuring Scala
Opalvision and Phoenix products

VISIT the **FREE*** Seminars - all day, every day, there's one to suit you!

You can take part in seminars including the very latest in
video, animation and CD ROM technology!

You can take part in seminars showing the very latest techniques
in power Word Processing!

You can take part in the very latest **MICROSOFT** seminars, too!

* Seminars are free once inside the exhibition.

y, July 3, 4 & 5

\$2 OFF!
SPECIAL OFFER FOR ACAR READERS!
Simply present this coupon
at the door for \$2 off
adult/\$1 off child
admission

Phil Campbell checks out a game based on the work of a world class artist. If you like tons of atmosphere and mood, look no further than ...



Picture a babe with milky eyes and an aquiline nose. And sensuous lips.

And a neat set of purple tattoos entwined with the sculptured snake that crawls from her forehead towards the bridge of her nose. Dendritic ridges of sculptured skin on her flanged cheeks complete the effect nicely. This dame is the stuff nightmares are made of - and she's staring at me from the three dimensional boxlid of *Darkseed*, a unique computer game inspired by the artwork of Swiss surrealist H.R. Giger.

Giger's airbrushed masterpieces have inspired movie blockbusters like *Alien*, *Alien III* and *Poltergeist II*. With a style that's been labelled "biomechanical", Giger likes to explore the synthesis of organism and mechanism - the hybridisation of man and machine. It's striking stuff, and not what you'd call pretty. More like haunting, like the babe on the box with the nasty nose-job. The fact is, she makes Michael Jackson look ... normal.

In *Darkseed*, I'm Mike Dawson, a science fiction writer who has just purchased a run-down Victorian mansion. It was one of those impulse buys - I needed somewhere quiet to work on my new book, and it was a bargain. So I snapped it up before I even looked it over.

I arrived last night, and immediately came down with a headache. I slept fitfully, disturbed by a series of horrifying nightmares. And now it's morning. My head is still thudding. There's a whistling sound in my ears, and the ticking of the grandfather clock on the landing is oppressive.

Other than that, I'm fine.

So let's have a look around. The peeling wallpaper speaks of better days, as do the ornate drapes. Two doors lead out of the bedroom; one to the landing, the other to the bathroom. I take a quick shower, then head downstairs.

The doorbell rings - it's the postman, with a parcel. Strange. Nobody knows I'm here. Inside, there's a lifelike China doll ... as I look at it, my head swims, and the doll is transformed into one of the hideous creatures from my dream. Mmm. You don't have to be Einstein to see there's something a bit odd going on! But what?

The fact is, Mike's house just happens to lie on a faultline between two worlds - and as you play *Darkseed*, you hold the fate of both of them in your hands. Your first task is to find your way into the Giger-inspired DarkWorld - and apart from the occasional weirdo doll and the odd dream sequence, it's not exactly easy.

FACTBOX

Darkseed is a top notch product that redefines the state of the art in Amiga animated adventuring. Graphics are ornately detailed, sound is moody, and the gameplay should keep you guessing.

Ratings

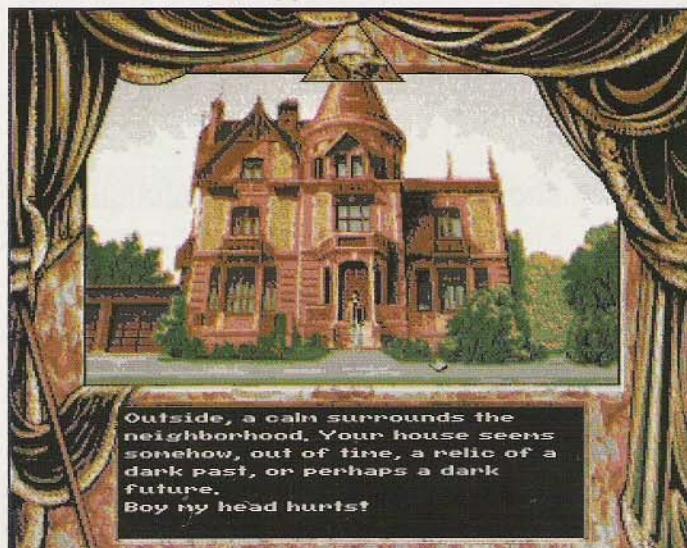
Graphics	89%
Sound	81%
Gameplay	87%
Overall	87%

Distributed by Ozisoft (02) 317 0000. RRP \$89.95. Available from your retailer.

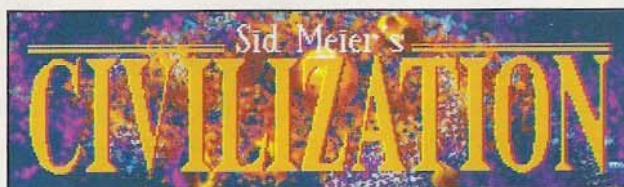
So far, I've investigated the house and found two secret rooms, I've wandered into the village, bought a bottle of cheap scotch, met my neighbour Delwyn, and borrowed a book from the library. It's all good fun, with top class graphics, an excellent and moody soundtrack, and suitably obscure clues. Things are gradually falling into place - I've found one secret passage way in the house, but I still haven't found the cosmic portal that I'm looking for.

From the outset, it's perfectly obvious that *Darkseed* is a very classy game. Giger's graphics have been used extensively in the title sequence, and they'll re-appear later in the game. The more mundane "real" world graphics are a treat too; highly detailed, and - in the house at least - architecturally ornate.

The character animation is great, with every movement based on digitised video footage. "Mike" is a real person - a living, breathing, walking and talking testimony to the power of interlaced Amiga graphics. If you're still running an Amiga 500 or an A2000 without a flicker fixer, you may find the high-res jitter a little offputting - Amiga 1200 users will have no problems.



For a guy with no table manners, and terrible taste in music, Stuart Elflett is remarkably civilized. Well, he is now, anyway, because he's been checking out the latest world-sim ...



Just where do you begin with a game as good as *Civilization*? This game is truly monumental - I've never been as impressed with a game as much as I am with *Civilization* - it's THAT good! Somehow it makes any other simulation seem like it's just a game - *Civilization* is real. If *Railroad Tycoon* was out of this world, *Civilization* leaves the galaxy!

Okay, I'll try and calm down a little, and give you some idea of what it's all about, and why you owe it to yourself to experience the game firsthand.

Civilization goes where no game has really managed to go before, from the dawn of our world, into the not so distant future the game simulates the development and evolution of the entire human race. It takes the concept of *SimCity*, and magnifies it to a global scale, incorporating the need for an effective system of trade and travel - yes, railroads. Why settle for building and running one city or railroad when you can control both across the entire planet ... and the future of its population?

You start with just one lonely group of settlers of your chosen nationality from which you will build a civilization that will grow to cover the planet, or as much of it as you can subdue. For out there

beyond the frontiers of your settlement, in those black undiscovered parts of your map there are other civilizations, growing, developing and most importantly, expanding.

As the years pass and your population's strength and wisdom grows, you must defend yourselves against invaders and venture forth to conquer. You also have the option to make peace or offer alliances. Destruction of other civilizations makes for great sport but you must remember your dwindling treasury and the need for trade routes.

To add to the game's wide array of goals you must also prepare for the great space race and colonization of far away planets (free from pollution and global warming). If you think colonizing far flung star systems is too complicated, you could simply try to conquer the whole planet ... or maybe just surviving is enough of a challenge?

The methods used to control your population in *Civilization* are very easily learned and understood. What really made the game for me was the constant need for input into the control and progress of the game.

Civilization operates on a system of game turns, each task to be performed

FACTBOX

Civilization is a remarkably thorough and well equipped "god-game," with almost infinite play options. If you liked *SimCity* or *Railroad Tycoon*, this game is for you. The elementary graphics and sound don't seem to detract from the top-notch gameplay at all!

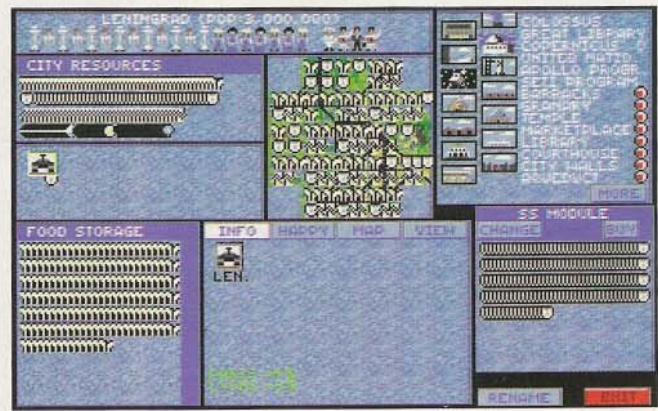
Ratings

Graphics	69%
Sound	68%
Gameplay	94%
Overall	89%

Distributed by Sega Ozisoft.
RRP \$79.95.

takes a certain length of time or number of game turns. For instance, a group of settlers travelling on foot can only travel one square each game turn whereas a horse drawn chariot may move three. Each active unit under your control waits for instructions each and every game turn. Gone are the long periods of time watching or monitoring growth, with *Civilization* you are in control every step of the way! You control what your people build, where they go, who they fight with and how happy they are (which is of vital importance). In fact, you control everything they do for 6000 years.

There are more options and choices available to you than any other game I can think of - I've even stopped playing *Railroad Tycoon* (another excellent Sid Meier game that was previously a pretty serious addiction) in favour of *Civilization*.



If I had to choose just one piece of software to take to an Amiga equipped desert island, it would be *Civilization*, without a doubt - there are so many options and variations that it would last forever. Everything can be customized, even down to a replica Earth.

You can choose from multiple different races and the number of opposing civilizations. Every game is different and will require fine tuning of your strategy to be beaten.

The manual is very thorough, giving all details concerning the game in a clear, easily readable manner. In fact, much of the information in the manual is available on-line, as you play, from the extremely complete "Civil-o-pedia", a disk based encyclopedia that can be accessed by a click of the mouse, giving instant information about hundreds of topics relating to the game.

An on-line help mode is available, supplying advice from a number of advisors, who will provide what they believe (based upon your government type) to be the best choice available to you. Use of this feature allows you to jump straight into the game, with only minimal amounts of reference to the manual.

Civilization even comes complete with an auto-save option, which saves the game every fifty turns, eliminating the annoyance factor if your local electricity company does the dirty on you - also saving concentrated sessions of hair pulling when you realise that your chosen strategy is just not working! Mention should be made of *Compute's Official Guide to Sid Meier's Civilization*, a book which is not just a play to win guide but provides many in-depth details of various features of the game ... which will be invaluable to most players.

Civilization manages to combine all the best features of all the other simulations and God games around - it's got the lot. The graphics are a little simple, but they very clearly indicate all the information that you need - this is life, not some flashy arcade game in deep space.

If you've enjoyed *Sim City*, *Railroad Tycoon*, *Ports of Call*, *Populous* or any of their ilk, then you deserve *Civilization*. It's an essential part of any Try-hard god's software collection! So what are you waiting for - go get it now.

King's Quest V Solution Part One

Tearing your hair out? Frothing at the mouth because you can't crack King's Quest V - Absence Makes the Heart Go Yonder? Don't despair! Role Playing Expert Mark Harris is here to take you by the hand and lead you through step by step.

Part 1 - Sorcerer's House and the Prince

Welcome to *King's Quest V*. Stick with my instructions line by line and I'll walk you right through the game. But one word of advice - only read this if you're desperate. Otherwise you'll miss the fun of working things out for yourself!

Walk one South, then one West from the Sorcerer's House. Talk to the Prince, then go one South and one East to town.

In town, walk up to the man fixing the wagon and talk to him. Then enter the tailor shop. Return to the street. Take the coin (near the wagon). Look in the barrel and take the fish. Walk to the Bakery (one west of Town). Enter and buy a pie. Walk to the Beehive (two west).

When you get to the Beehive, throw fish to the bear and walk to the tree. Take the honeycomb, then take the stick and walk to the anthill (one north). At the anthill, throw the stick at the dog, then walk to the inn (one south then two east).

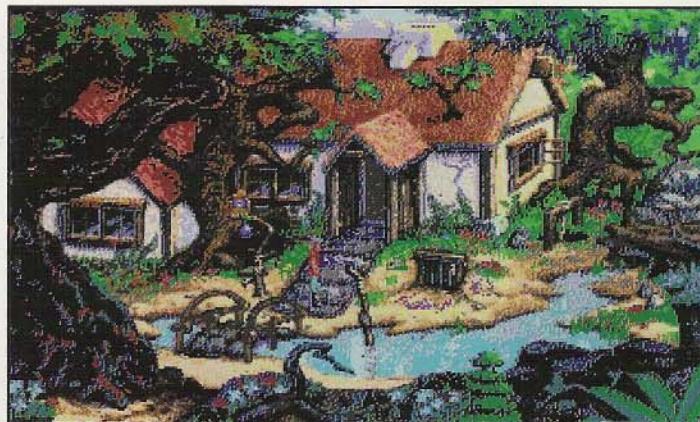
Walk to the haystack on the west side of the inn and search it. The ants will

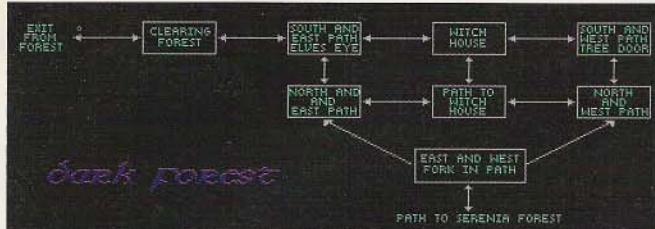
come and help. Take the golden needle and walk to the beehive.

Part 2 - In the Desert

From the beehive, walk five locations west. Drink. (Save at each oasis in case you get lost). Walk to the shoe (two west and one south). Take the shoe and walk three west. Drink some water and then walk two east and three north. Drink more water. Hide behind rocks, (trial and error to find right location to hide) and watch how the bandits enter the Temple. Walk three south and two west. Drink more water and walk three south and one west to the Bandit Camp.

At the Bandit Camp, drink some more water. What? You feel like a camel already? Tough - drink it anyway! Enter the right side of the small tent avoiding the sleeping bandit and take his staff. Leave the tent and walk one east and three north, drink again, then walk three north and two east, drink, and then walk one north to Temple (Save the game). Use staff to enter the Temple.





Part 3 - The Temple

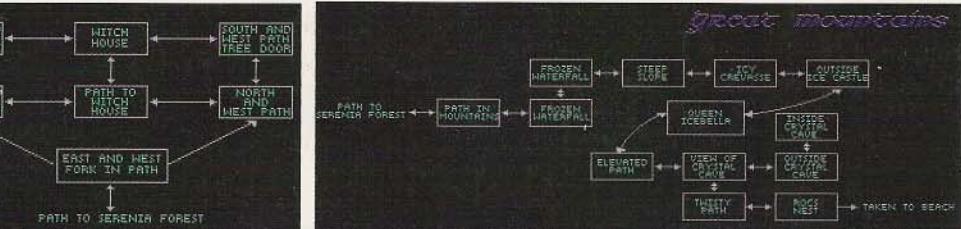
In the temple, ignore the treasure and look next to the door. Quickly take the bottle and coin, then leave temple and walk one south and drink again. Walk east eight screens to the Gypsy.

Walk up to the man and give him the golden coin, then enter the wagon. Get the amulet and leave the wagon. Go to the Warning Sign (two east). Wearing the amulet, walk north, then west, to top of that screen, and then walk east to Dark Forest. Then walk north to the Witch's House.

Outside the house, give the brass bottle to the Witch. Enter house. Open the trunk on the north wall and take the spinning wheel. Look at the light and take the key. Open the drawer on the west wall and take the pouch. Open the pouch to get the emeralds. Leave the house and go east once to the tree with the door.

Now use the key to open the door, get the heart and then walk two west to the Elves.

Throw your emerald on the ground. Use honeycomb to make a sticky spot on the ground. Now throw another emerald on the ground. Throw another emerald on the ground (near the honey) and the Elf will get caught. Talk to the Elf, then follow him. Walk into the

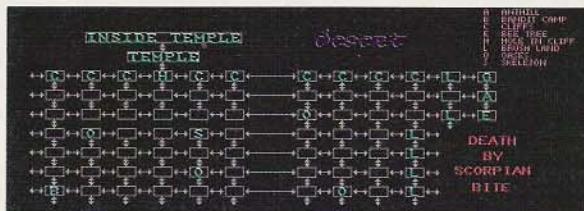
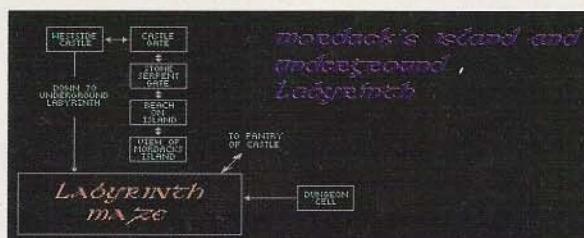


Inside Moodwick's Castle

FIRST LEVEL



SECOND LEVEL

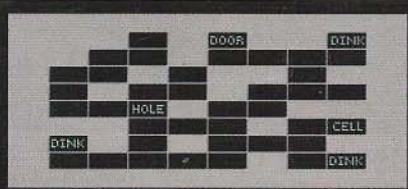


Elf hole. You're now in the Elf Tunnels.

Take the shoes, and enter the tunnel on the east wall. (This will return you to the Warning Sign). Walk to the tree with the harp. Give the heart to the tree and get the harp. Walk two west to the gypsy.

When the gypsies have gone, take the

Labyrinth Maze



Beach and Ocean



MICHAEL SPITERI'S

Adventurer's Realm

Greetings once again! If you didn't know already, this is the part of the magazine for adventurers, role-players, and wargamers. In fact, if strategy, adventure and mystery is your thing then you have come to the right place.

Those who are currently at the brink of jumping (from a cliff) because of an adventure problem - don't take that final step yet! You can write to one of the Clever Contacts that are distributed across the nation or you can drop a line to Kerrie in the Free Hint Sheet department. If all that fails, send your problem to me and we'll take it from there!

Of course, smarty pants game players are also welcome here. If you can help out with specific hints and tips or even general help, drop a line in to the

Realm.

Finally, gossip, rumours, whinges, and just general chat regarding adventure and roleplaying games are also welcome here - and don't forget to take advantage of our free classifieds!

The address to write to for stuff on adventure games is: Adventurer's Realm, 12 Bridle Place, Pakenham Vic 3810.

Kamikaze Andy lives in his Dungeon and will cater for all your roleplaying game problems (but not hint sheets!). His address is: Realm's Dungeon, PO Box 1083, Canning Vale WA 6155.

Always enclose a stamped addressed envelope when writing to any address printed in this article - especially if a reply is needed.

Realm's Official Adventure Solutions Disk

Just send a \$5 cheque payable to Michael Spiteri and enclose a blank disk and a stamped, self addressed envelope, and I'll send you out the first Official Solutions Disk containing solutions and hints for 89 games! The disk was put together by Graeme Beaven and contains help for a huge range of adventure and roleplaying games.

Remember, you must enclose a stamped addressed envelope and a disk - and send it to Realm's 1st Hint Disk, 12 Bridle Place, Pakenham, Vic 3810. Or, pick one up at the World of Commodore Show in Darling Harbour!

Realm's Super Duper Hint Books

I have some good news and some bad news (depending on how you look at it). The first *Adventurer's Realm Hint Book* is gone - every single copy, sold out. However, we still have a good pile left of the second *Adventurer's Realm Hint Book*, and if all of these go, then we might be tempted to go for the third!

Though what a bargain! I mean, ten dollars won't even get you a decent (ahem) McDonalds meal, but if you send ten smackers to 21 Darley Rd, Randwick, NSW 2031 you will receive a hint book packed with hints for over 25 adventure and roleplaying games, as well as pages upon pages of handy adventure mapping sheets. Ring Darrien on (02) 398 5111 for more information.

World of Commodore 1993

Okay adventurers, this is one event that should not be missed. Adventurer's Realm will be there with heaps of hints sheets to give away. As well as that, I'll be signing up new Clever Contacts and you'll have what could be your last chance to pick up the *Second Adventurer's Realm Hint Book* at a show stopping price. So be at Darling Harbour between July 2nd and 4th, okay?

Free Hint Sheets

Kerrie, the Lady of the Realm, is currently digging! What does she dig, man? Well, she digs all the mail she gets every month asking for free hint sheets, and I mean that literally! However, Kerrie is particularly excited this month as a new hint sheet rolls off the press. Thanks to Noel McAskill, we now have a combined *Mortville Manor/Maupiti Island* hint sheet. Now those frustrated Jerome Lange lookalikes can sigh with relief as their cases open up!

If you would like some of our free hint sheets, just send a stamped addressed envelope plus a list of four hint sheets from the list below to: Kerrie's Free Hint Sheets, 12 Bridle Place, Pakenham Vic 3810

The list now looks like this: *Mortville Manor/Maupiti Island*, *Monkey Island 1*, *Monkey Island 2*, *Space Quest 3*, *Space Quest 4*, *Wonderland*, *Larry 3*, *Champions of Krynn*, *Kings Quest 5*, *Pool of Radiance*, *Zak McKracken*, *Zork 1*, *Zork 2*, *Zork 3*, *Bards Tale 1*, *Bards Tale 2*, *Bards Tale 3*, *Hitchhiker's Guide to the Galaxy*, *Guild of Thieves*, *Jinxter*, *Pawn*, *Corruption*, *Faery Tale*, and the 1993 Clever Contacts Listing.

Realm's Trading Post

Shane Robertson of 14 Sonoma Road, Budgewoi, NSW 2262 has several games to sell (mostly adventure games) for the Commodore 64. All vary from \$5 to \$30 and all are original. Write to Shane for a complete list if you are interested.

Glen Christie of 7 Eric Street, Blackwood, SA 5051 has a big range of C64 Infocom adventure games for sale. You can ring him on (08) 370 2027, or contact him by mail.

Ashley Bryant of 11 Raingill Avenue, Warrnambool, Victoria 3280 has two great C64 roleplaying games - *Pool of Radiance* and *Hillsfar*, for \$25 each or \$40 the two.

Jonathon Groves of 1 Herring Court, Sorrento, WA 6020 has quite a big range of Amiga games for sale, including *Conquests of Camelot*, *Double Dragon 1, 2, 3*, *California Games*, *Winter Games*, *Stunt Car Race*, *Spy vs Spy*, *Kick Off*, *Super league Soccer*, *Afterburner*, *Operation Wolf*, *Operation Thunderbolt*, *Arthur*, and *Quest for Excalibur*.

This is probably the only time you'll see Bill Fife's name in the Realm. That's because he's not really a true adventurer but somehow inherited some adventure games from his brother in law (who must have been an adventure freako). Anyway, enough of the small talk, Bill has *The Black Cauldron*, *Sherlock & The Riddle of the Crown Jewels*, *Defender of the Crown*, *Kings Quest I to III*, *Shadowgate* and *Monkey Island I*. All of these games are for the Amiga and you can contact Bill at 21 Lyton Street, Blacktown, NSW 2148 or you can ring him on (02) 622 8354. Bill wants some good Amiga platform or car racing games (hohum) in exchange for these top titles.

Matt Armstrong of 11 Harcombe St, Bell Post Hill, Geelong, Vic 3215 has *The Hunt for Red October* for the Amiga for only \$15, and has some AMOS demos that he's written for only \$1 (which gets you eight demo games but you have to supply a disk). Matt is after some good AMOS games and also some *Zorks*.

Terry Baker of 3/5-13 Dellwood Street, Bankstown NSW 2200, or (02) 790 5374, has *Eye of the Beholder I*, *Secret of Silver*

Blades, *Pools of Darkness* and *Gateway to Savage Frontier*. These are \$20 each, or \$25 with clue book. That's not all. Terry also has *Mega Traveller I*, *Populous*, *Castles*, *Floor 13*, *Medieval Warriors*, *Battle Isle*, *Spoils of War*, *Sports Pack* (featuring *Jack Nicholas Golf*, *Cycles*, *TV Sports Football & Basketball*), and *Games Pack* (featuring *Wings*, *Lemmings*, *Pro Tour Tennis*, and *Shadow of the Beast*). Terry wants \$20 for the games and \$30 for the packs, or will swap for *Larry I*, *Battletech*, *Monkey Island I*, or a decent cricket game.

Tim Wilson of 16 Riatta Court, Rye, Vic 3941 has *Black Crypt* and *Chaos Strikes Back* for the Amiga, and he'd like to swap them for *Buck Rogers*, or any RPG except for those D&D ones set in Krynn and the Forgotten Realms.

Greg Bell of 12 Greenhill Ave, Figtree, NSW 2525 is searching high and low for *Maniac Mansion*, *Zak McKracken*, and *Search for the King*.

If you'd like to swap, sell or search for any type of game, send the details to Realms Trading Post, 12 Bridle Place, Pakenham, Vic 3810. Any pirated software will not be advertised.

Problems, Problems & more Problems
or the
**Troubled Adventurers
Dept.**

Wayne Forbes, one of our new Kiwi readers, is stuck in *Personal Nightmare*. He appears to have problems trying to get into Ivy Cottage. The problem is that he always gets garroted from behind. Any takers?

Stephen Treloar from Frankston in Victoria is stuck in *Indy 4*. He is at the stage, where Indy is faced with a set of skulls. He has to push certain skulls to open the

Clever Contacts

New Clever Contact is Shaun Hately of 45 Moreton St, Frankston North, Vic 3200. He can help in *Bard's Tale III*, *Death Knights of Krynn*, *Secret of Silver Blades*, *Police Quest 1, 2, 3*, *Ultima 6, 7*, *Kings Quest 1*, *Eye of the Beholder 1, 2*, *Champions of Krynn*, *Pool of Radiance*, *Curse of Azure Bonds*, *Bards Tale 1 & 2*.

Also new is Daniel Cannon, 13 Tamworth St, Dubbo, NSW 2830. He can help out in *Monkey Island 1, 2*, *Zool*, *Dream Zone*, *Rocket Ranger*, *Colorado*, *Garfield*, *Hook*, and *Zak McKracken*.

Shane Robertson of 14 Sonoma Rd, Budgewoi, NSW 2262 wants to update his Clever Contact listing to now include: *Miser*, *Lost in the Amazon*, *Apache Gold*, *Castle Adventure*, *Castle of Mydor*, *Lost City*, *Hitchhikers Guide*, *Harbore*, *Gypsum Caves*, *Guild of Thieves*, *Dog Star Adventure*, *Critical Mass*, *Corruption*, *Cavern of Riches*, and *Castle Quest*.

Matt Armstrong (Realm Trading Post for address) updates his listing, now to include *Omnicon Conspiracy*, *Space Quest 5*, *Indy & Fate of Atlantis*, *Rise of the Dragon*, and *Heart of China*.

Many thanks to all the Clever Contacts for doing such a great job, and don't forget, prospective Clever Contacts, you can sign up at the World of Commodore show in Darling Harbour.

door. This problem sounds familiar. Can anyone shine some light on the situation?

Heather Sneddon from Warilla in NSW is stuck in a game called *Little Puff in Dragonland*. Finding the final piece of a ticket is what is troubling Heather.

Shane Robertson is stuck in an oldie called *The Detective Game*. He doesn't know how to locate the secret passages which are on the plans of the castle and he can't avoid being shot at 11:06pm. Sounds like someone's got a bounty on you, Shane.

Matt Armstrong asks if it is possible to get the end door open (which is situated in the tunnel in the Robot Factory on Planet Cron) in the game *Omnicon Conspiracy*. Is there any use at all for the cords of where the space ship was attacked? Also, Matt asks, what does he do at the asteroid that's been sold. When he walks outside, he suffocates!

The Jerome Lange saga continues! I recently received a letter from Katie Hollins from Lankhor in France. It appears Lankhor are looking for a new Australian distributor for their great games. Hopefully we will have found one for them by the time you read this. I'm in the process of trying to line up an exclusive Australian preview of the next Jerome Lange adventure, *Sukiya* (set in Japan), however read on for details of a new Lankhor adventure called *Black Sect*. Meanwhile, send away for Noel McAskill's new *Mortville Manor/Maupiti Island* hint sheet.

Glen Christie of Blackwood in SA is searching everywhere for *Lost Treasures of Infocom II* and *Return to Zork*. Can anyone point him in the right direction? At time of writing, *Return to Zork* was still in the works and was due for release later in the year.

Tim Wilson of Rye in Vic has a few comments to make: "In the March issue I gave a hint to Aaron Danks about *Police Quest III*. The hint was supposed to be for *SimCity*. Also, why can't those adventure program companies make games with the choice to use point'n'click or type in commands. Why don't they mix them together?"

Mike: It appears the gremlins got into

Adventure Chat

the March issue. Tim's *SimCity* tip was to press shift and type FUND to get extra money. It appears any company that releases any form of text based adventure game is considered 'brave'! Legend (led by ex-Infocom members) release all their PC games with a combined interface of point'n'click and type in commands, but that's about it!

Matt Armstrong of Geelong in Vic writes: "I would like to know when *Space Quest 5* is coming out for the Amiga. I'm a *Space Quest* fan and I hope the rumour about Sierra dropping the Amiga is a fat ugly lie."

Mike: Well, Sierra haven't released a major Amiga title in quite a while, however don't lose hope. I read somewhere that Sierra are committed to supporting the Amiga 1200, so expect *Space Quest 5* for that machine.

By the way, I have played the game on a PC. It is quite hilarious, however has a horrible habit of killing the player more frequently than desired.

Matt also has some news regarding where you can buy *Indy & The Fate of Atlantis*. He suggests paying a visit to Maxwell's Computer Centre in Nicholson St, Abbotsford, Vic.

Greg Bell of Figtree, NSW writes: "I have noticed how games don't stick around for very long. If you have a look around you'll notice that games like *Monkey Island 1*, *Maniac Mansion*, and even *Space Quest 4* are getting really hard to get. Once an adventure game is released, a month later it is off the shelves and along comes a new game. As you should have noticed, the *Zork* series are long gone and are nearly impossible to buy."

Mike: Thanks for your views, Greg. Software companies keep producing the same games as long as there is a demand for them. It would be impossible for a retailer to stock every game released, and the quality of some of the new releases will usually ensure that the older ones will not sell. You should still be able to find older games at reduced prices are in the form of games packs.

I don't think *Zork* is a good example, because it was available for over ten years! It is still available on Infocom's adventure packs. I think that titles stay around for much longer than a month, more like three months.

Realm Exclusive Preview - Lankhor's Hot New Adventure:

Adventurer's Realm recently received, from France, exclusive information and screen shots of the soon to be released Lankhor adventure, *Black Sect*. From the makers of *Mortville Manor* and *Maupiti Island* comes this new adventure set in the depths of the Yorkshire Moors in England. A mysterious Black Sect has infested the region, and it is your job to get vengeance for the death of your Grandfather (killed by the sect) and relieve the local village of this dreaded group.

This game features animated graphics to depict 34 locations



Black Sect

and the various characters who live within them. The main plus of the game is apparently the atmosphere created by the superb soundtrack and sound effects, combined with greatly improved graphics.

Both *Mortville Manor* and *Maupiti Island* have won awards across Europe, and if these are any indication, *Black Sect* should be a must-buy. It is due for release on the Amiga next month, with a PC version following in September. Meanwhile, enjoy the screen shots of this new game.

Help, Help & more Help or the Smart Adventurers Dept.

Game: Curse of Enchantia

To: David Marjanovic (April Issue)
From: Matt Armstrong and Graeme Beavan.

Help: To cross the second cavern in Enchantia, press buttons 1, 2 and 4 (Graeme's hint). There might be a rock above the chasm which you need to make fall. You should have a hat which catches rocks. Wear it and walk under some rocks, then throw a small rock at a big rock above the chasm (Matt's hint):

Game: Monkey Island 2

To: Daniel Cannon (April Issue)
From: Matt Armstrong and Graeme Beavan

Help: Fill the balloon and gloves with helium then use the lift and make a voodoo doll. Visit the voodoo lady be-

fore opening the coffin in the crypt. Use JoJo the monkey on the pump. Take the lens from the model lighthouse in the Phatt island library and give it to Wally (Graeme's hint). In easy mode, underground in Dinky Island you need to make a voodoo doll of LeChuck. You'll need beard bits, underwear, doll, skull, offer the white hanky. Put everything in the JuJu bag and use the syringe in the medical room as a pin.

Game: Hook

To: David Marjanovic (April Issue)
From: Graeme Beavan and Daniel Cannon.

Help: The money is in the pots on Hook's ship. Use it to buy the magnet. Don't worry too much about Tinkerbell.

Game: Codename Iceman

To: Stuart George (January Issue)
From: Graeme Beavan

Help: In the machinery room, push the button, get and inspect the diver, examine vibration, check and measure shaft, put washer and nut on shaft, tighten nut, climb up and open the door.

Game: Ultima 5

To: Simon Vaughan (Feb issue)

From: Graeme Beavan

Help: The amulet will reveal the entrance to the Dragon Doom on the dark underground island. The Sandalwood box will not open - you give it to Lord British to end the game. The Mystic Weapons are found in the lava below Hythloth. They are not essential in completing the game.

Game: Zombie

To: James Allen (March Issue)
From: Graeme Beavan

Help: Get the keys in the security room to open the fourth floor where the trunk keys are located. Get the rope in the sports store and use it on the balcony. Get the fuse, gloves, torch and gun then repair the fuse in the basement. Now the computer will activate the lights.

Game: Space Quest IV

To: Greg Ball (April Issue)
From: Matt Armstrong

Help: All you need is the matches. Get back to the time pod and type the co-ords in to get back to Space Quest XII. (You should have got the co-ords when you first entered the timepod near the start of the game).

Computer Adventure Games - Hints & Tips

The Second Adventurers Realm Hint Book

Clues to lots of great adventure and role-playing games.
If you're stuck on a problem, you need this book.

Post or fax your order to Saturday Magazine Pty Ltd.
21 Darley Rd, Randwick 2031. Phone (02) 399 8419, Fax (02) 398 5322.

Please send me Computer Adventure Games - Hints & Tips (The Second Adventurer's Realm Hint Book) for \$10 including postage
I enclose a cheque or money order for \$10
OR Please charge my Bankcard Visa card Mastercard
Card No
Name (print)
Signature
Address
..... Postcode

If you use an IBM compatible as well as your Amiga, you should have a look at our magazine



the magazine for the small office and home office user.

No-nonsense, easy to understand reviews of software and hardware, latest news, how to make things work.

\$3.50 from newsagents

or subscribe for
\$38 for 12 issues, \$20 for six issues

Post or fax your order to Saturday Magazine Pty Ltd.
21 Darley Rd, Randwick 2031.
Phone (02) 399 8419, Fax (02) 398 5322.

The Dungeon

by

Kamikaze Andy

Well, the Dungeon is back after a period of noticeable absence. Just as Lord British mysteriously disappeared after the discovery of a huge cavern underneath the lands of Britannia in *Ultima V*, history repeated itself!

This time it was the legendary Kamikaze "I'll NEVER get lost in a dungeon" Andy who ... em ... got hopelessly lost. Suitably chastened, Andy has vowed to stock up on Extra-Power Duracell light spells instead of the usual Swap Meet stuff he picks up at the local medieval faire ...

While he has been "away", the Dungeon's administrative goblins have been hard at work trying to come up with brand new ideas to reshape the outlook and the style of this column. However, as goblins aren't exactly known for their intellectual prowess (in other words, there are more brain cells in a 50 cent coin than in a collective of these critters), it took the return of Kamikaze Andy before things finally began to sort themselves out. Thank heavens for that "Undo" spell ...

(Note: Regular readers of the Dungeon will probably be aware by now that this month's column is one of those "weird, commentary, retrospective pieces that Andy often comes up with when he's had one too many of Iolo's home made brews").

Anyway, what I planned to do this month was to cast a "View the Future" spell, and describe some of the changes that the Dungeon will undergo during the next few episodes.

In the past, the Dungeon has served in quite a few roles, from regular news broadcaster to hint oracle to controversy corner. The new philosophy, as drawn up and blood stamped by those who still have red blood after years in this dark damp place, will be different, but hopefully not too radically different! (No, we won't be covering arcade games yet.)

"View of the Future"

Firstly, starting in a few months' time, there will be an increased emphasis in the latest Role-Playing and Adventure games, both for Amiga and PC (after all, the Commodore family does include those PC-Compatibles that help balance the books). This means more news, mainly due to greater direct access to US software publishers (who continue to be the dominant RPG and Adventure softcos).

Once we have established secure links with the US side, the growing UK RPG software publishing scene will be targeted. As is the case in the real world today, a lot of this information will be geared towards the MS-DOS platform,

but the Dungeon will use all forms necessary to obtain details of Amiga versions and projects.

There will also be more "special reports", which hopefully will include coverage of the internal workings of a typical software publisher such as Origin or SSI, and maybe one or two interviews with some of the major figures in the scene. There are also plans to cover the slow but sure rise of CD-ROM RPGs/Adventures as the market continues to develop. These are the next generation of computer entertainment - ultra realistic monsters and dungeons that could lose Kamikaze Andy forever ...

In terms of the hint oracle function of the Dungeon, the goblins in residence have decided that this is one area which will be given less emphasis in the future. The reasons for this are simple: the number of clever contacts in the Realm has grown large enough to handle the questions of stuck adventurers, and the hint sheets that are freely available from the Magic Xerox Maker also help in this purpose.

The Dungeon will try to come up with a few more hint sheets specifically for Role Playing games, as well as a general guideline to successfully playing and conquering RPGs once the Dungeon Electronic All-Knowing Database (DEAD) recovers from the last staff party (yep, DEAD is DEAD right now).

One thing that must be remembered: the Dungeon is only one arm of the all encompassing Adventurer's Realm, and thus some of these planned changes will take time to actually appear. It's going to be a mighty job to squeeze all that information into approximately one page every month, but then that's what the adventurer is used to - challenge! And yes, the goblins have promised to keep careful track of where I wander off to next time. I think they must have tampered with my geo-positioning indicator ... that's the last time I use modern technology instead of the tried and true "drop one item in every square" method when I try to get out of a maze.

Okay Goblins - get back to work. I can always replace you with Orcs - same level of intelligence, but they work for fewer gold pieces.

AMIGA 4000



No Problem

Specifications

Microprocessor

A4000/40 - Motorola 68040 at 25Mhz
A4000/30 - Motorola 68EC030 at 25Mhz

Interfaces

One serial & one parallel port
External floppy drive port
Stereo audio output for hi-fi or monitor
RGB monitor / video port
Mouse & joystick game ports
Internal AT IDE Hard Disk interface

Storage

120Mb IDE Hard Drive
1.76Mb/880K High Density Floppy drive
2x3.5" Slimline drives (1 used)
1x5.25" mounting bay

Audio

4 voice, 8 bit digital audio with stereo output

Memory

A4000/40 - 2Mb 32bit Chip/Display ram 4Mb Fast ram expandable 16Mb
A4000/30 - 2Mb 32bit Chip/Display ram 2Mb Fast ram expandable 16Mb

Workbench v3 featuring

Multitasking v3 Operating System, Compugraphic outline fonts, PostScript Output Support, MSDos 720K/1.44Mb Disk reader, up to 256 colour Workbench Screens

Graphics & Video

Advanced Graphics Architecture (AGA) Chips
New 256 colour screens, new 262,144 Ham8 colour screens from 24 bit palette of 16.8 million colours, resolutions from 300x200 up to 1280x512
15-31KHz scan rates with mode promotion for de-interlacing screens

Supports 15KHz 1084 Monitors & MultiSync monitors

x4 performance increase over ECS chips

New sprite features: 16, 32 or 64 bit wide screen independent pixel resolution
Backward compatible with ECS and original chip sets

Expansion

4 autoconfig Zorro III expansion slots, 3 PC/AT slots in line with Zorro III for use with audio & video digitisers



For a supplier near you call

(008) 805 067 (outside Sydney metro area)
or (02) 428 7666

That's the World of Desktop Video...



Sirius-Genlock

Semi professional genlock with fading, superimposing, bypass, RGB-control, autom. colorsplitter, composite to S-video and vice versa transcoding. Now including Scala 500 Junior!



FrameStore

Realtime digitizer for all Amigas with composite and Y-C inputs. Software controlled PAL / NTSC selection. The new Software 2.0 supports HAM8, dithering... Ideal for the Amiga 1200!

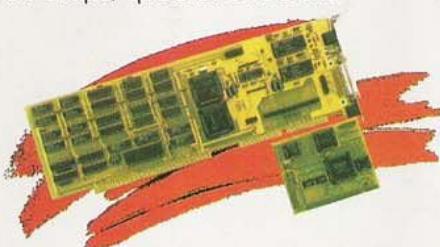


Y-C-Genlock

For composite and Y-C signals, excellent quality, fading, image controls, RGB-splitter, signal transcoding, runs with the A3000 flicker fixer. Now including Scala 500 Junior!

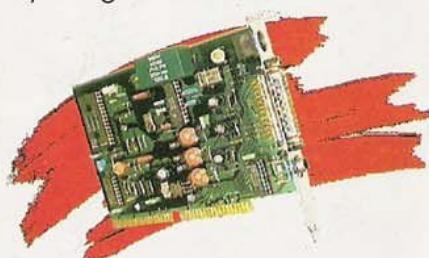
FrameMachine + Prism 24

High speed realtime digitizer for the Amiga 2000 and higher. Features scaling, Art Pro Loader, editing tool for sequences, 24-Bit graphics, realtime video overlay and video mixing with Genlocks! New Software 2.0 supports HAM8, AA-Chips, special effects...



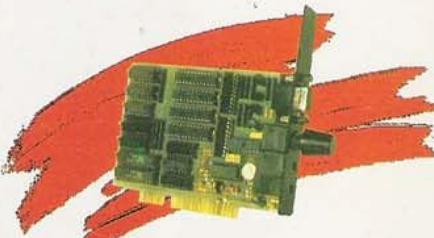
Video Converter

This Video Converter provides composite and Y-C-outputs in real broadcast quality. Compatible to any Amiga 2000 - A4000.



PAL-Genlock

For composite video signals, high quality, fading, automatic RGB-splitter, controls for image enhancement, compatible to all Amigas 500 - 4000. Now including Scala 500 Junior!



Flicker Fixer

The one and only flicker fixer that runs in combination with any genlock. Save your eyes using flicker free PAL screens even in interlace!

28 minutes about desktop video on VHS \$ 29,95 or S-VHS \$ 49,95

authorized Australian Dealers

Color Computer Systems
288 Alexander Drive
Dianella 6062 W.A.
Call: (09) 375 30 18

Video&Audio Brisbane
45 Sherwood Road
Toowong, QLD 4066
Call: (07) 870 03 00

Computer Discounts
8 Shepherd St.
Broadway 2008 N.S.W.
Call: (02) 281 74 11

Video&Audio Gold Coast
18 Scarborough Street
Southport, QLD 4215
Call: (075) 91 42 24

Computa Magic P/L
44 Pascoe Vale Road
Moonee Ponds, 3039 VIC
Call: (03) 326 01 33

Amitech
104, Cronulla Street
Cronulla, 2230 N.S.W.
Call: (02) 544 1874

Phoenix Microtechnologies
18 Hampton Road
Keswick 5035 S.A.
Call: (09) 293 87 52

The Floppy Shop
99 Charles Street
Moonah 7009 TAS
Call: (02) 73 06 06

electronic-decide

D-8000 Muenchen 45 Detmoldstr. 2a Call: + 49-89 / 354 53 03 Fax: +49-89 / 354 56 74

*Technology
you can see*